CULTURAL CONTRIBUTIONS OF CALIFORNIA

BAY CITIES SERIES

C A R E E R S O F U N I V E R S I T Y O F C A L I F O R N I A M I N I N G E N G I N E E R S

1865-1936

by

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FOREWORD.

The College of Mining of the University of California is internationally recognized as superior in the educational field of mining engineering. Governments have sent commissions to the University for expert advice on various phases of the mining industry and students have been enrolled from many lands.

The outstanding merit of the institution is demonstrated by the careers of the graduates, many of whom have attained world distinction in their profession. The achievements of University of California engineers everywhere, their thorough training and business integrity haveserved to strengthen the prestige of the College of Mining.

The activities of graduates have spread to all countries where minerals are found. In South Africa, Gardner F. Williams '65 organized the diamond mines and other mining enterprises with Cecil Rhodes in the late seventies. Experts in cyanidation of ore who went to South Africa were Harry Webb '75 and Charles Butters '79. In the Rand and other important districts, those who took the leadership were E.H. Gartlwaite '80, F.L. Bosqui '88, C.V. Merrill '91, George Hoffman '99, W.W. Moin '00, David Goodale '00, Paul Selby '01, John Hoffman '01, L.A. Womble '02, E.A. Nis '02, Walter Lyman Brown '03. To the Gold Coast of West Africa went Henry Hay '94 and W.M. Van Deventer '11. In the intervening years other graduates have taken the California influence to Africa.

A pioneer to Alaska was D.B. Huntley '75. Among other University of California engineers and metallurgists who operated there were F.W. Bradley '95, R.A. Kinzie '97, C.H. Monroe '98, Bart Thane '99, N.L. Stines '05, Roy Elliot '06, and C.V. Daveler '07.

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In Central and South America, especially in the mining fields of Salvador, Nicaragua, Columbia, Ecudor, and Peru, famous engineers such as Charles Butters, S.L. Rawlings, F.M. Simpson, L.J. Joubert, H.L. Pascoe, Juan de la C. Posada, and others are graduates of the College of Mining of the University of California.

Francisco I. Madero, who became President of Mexico, was a graduate with the class of '95. Distinguished among metallurgists, mining engineers, and geologists who have operated in Mexico are F.L. Bosqui '88, S.L. Rawlings '99, and D.H. McLaughlin '14.

In Korea, A.E. Drucker '02 has added much to the metallurgical work accomplished. In Siberia, C.H. Munroe '98 and N.L. Stines '05 have been prominent in placer and other mining activities. In New Guinea, outstanding mining achievements are credited to Victor Bramming '25, and L.J. Joubert '11. In the Philippine Islands, University of California engineers are doing splendid work.

It is noticeable that in the last few years more of the graduates of the College of Mining have entered the petroleum field in the employ of the Standard Oil Company and the Shell Oil Company. These geologists have been sent to Java, South America, Mexico, Holland, and Bahrein Island on the Persian Gulf, as well as to various posts in this country.

A high percentage of graduates down through the years have attained the distinction of being listed in "Who's Who in America", "American Men of Science", and "Who's Who in California".

This is the first attempt to list the mining engineers, together with their varied and useful experiences since leaving the University. The information will be of interest not only to members

of the Alumni but, for practical purposes, to the public in general.

Mining Companies who employ engineers, and persons in the field who wish to consult experts on specific phases of mining, will find the biographies and addresses of value. Mining engineers who wish to make business contacts or renew old acquaintance will find a source of information readily accessible. Moreover, the reference-work will be an inspiration for the student.

In the preparation of the following material, enthusiastic response has been received from graduates far and near. In letters received, high tribute has been paid to the College of Mining of the University of California. No matter where the paths of progress have led, all are cemented by a genuine fellowship. In some cases it has been difficult to make contact; and the compiler regrets, therefore, the omission of personal data which has been unavoidable.

Splendid cooperation has been received from officials of the Alumni Association of the University of California and the Librarian at the College of Mining. The never-failing courtesy and kindly help of Dean Frank H. Probert, head of the College of Mining, is gratefully acknowledged. The assembling and preparation of "Careers of University of California Mining Engineers would not have been possible without the assistance afforded by the Works Progress Administration.

CAREERS OF UNIVERSITY OF CALIFORNIA MINING ENGINEERS

Class of 1865.

WILLIAMS, Gardner F. (deceased). His address was Pacific Union League Club, San Francisco.

Class of 1873.

OTIS, Frank (deceased), attorney. His residence was 1609 Santa Clara Avenue, Alameda, California.

Class of 1875.

WEBB, Harry. 2342 Summit Road, Santa Barbara, California.

Class of 1877.

CLARK, John Bernard (deceased). His address was 431 California Street, San Francisco.

COLINSKY, Frank Joseph (deceased). He worked at San Andreas, and Chinese Camp, California.

DEMAN, Frank Hardenburg, banker. Petaluma, California.

FAIRBANKS, Dolphes Brice (deceased). He lived in Petaluma, California.

MEEK, Harry (deceased). He lived in San Lorenzo, California.

SHERWOOD, William Robert (deceased). He lived in San Francisco.

Class of 1878.

CHERRY, Samuel Warren (deceased). His residence was 2441 College Avenue, Berkeley, California.

FOGG, George Everett (deceased), surveyor. His address was 1004 Broadway, Oakland, California.

Class of 1879.

BUTTERS, Charls, Ph.D. (deceased), mining engineer. He was born in Haverhill, Massachusetts, in 1854, and came to California at the age of ten. After graduation from the University of California he was employed as chemist by the Almaden Quicksilver Mining Company in Santa Clara County. He went next to Fairplay, Colorado, and established a surveying and assaying office, but invested in a gold-mill and went broke. After that he was employed as assayer and metallurgist in a silver mill in Frying Pan Gulch near Leadville. His next move was to the Holy Cross district where he started a twenty stamp gold mill. In 1882 he went to New York as agent for the Pacific Iron Works. Being a metallurgist, not a salesman, he did not like the work and was employed by Stetefeldt, Clarence King, Stephen Krow, Fraser and Chalmers, R.P. Rothwell, Walter McDermott, and William Frenchville. He started a silver mill for a New York company at Crested Butte, Colorado, and, in 1883, returned to New York and opened an office where general metallurgical work was done and a chlorination process for treating San Sebastian ore was found. At the age of thirty-one he went to Salvador and built a successful thirty ton chlorination plant. After two and a half years he returned to California and established a chlorination plant at Kennett in Shasta County in 1887. Gold, silver, and copper was extracted. In 1889 he went to Johannesburg, South Africa, where he built a successful chlorination plant. Mr. Butters made the first bar of gold produced by the chlorination process in South Africa and ran the plant until 1894 when he resigned and organized the Rand Central Ore Reduction Company.

This was a custom chlorination and cyanidation plant with a refinery - a general metallurgical establishment where all kinds of by-products were purchased. He was managing director for five years. Returning to America he bought the San Sebastian mine and organized the firm of Charles Butters and Company, Ltd., in London. (This mine has produced over ten million dollars, half of which has been distributed in dividends.) Going to Mexico Mr. Butters established a cyanide plant at Minas Prietas, Sonora, in 1901. This was the first mine in Mexico to treat slime by agitation and cyanidation. Mr. Butters continued his research in Germany and, in 1909, became interested in concentration by flotation with oil. He arranged a contract to introduce flotation into the United States and Mexico and established at Salt Lake City the first flotation plant in the United States. In June, 1914, he engaged in experimental and laboratory work. His knowledge progressed from amalgamation to chlorination, from chlorination to cyanidation. In Mr. Butters' own words, " a new era in concentration of ores has started." He was a member of the American Institute of Mining and Metallurgical Engineers and was President of The Exploration Company of California. He is listed in "Who's Who in America". His office was 505 Balfour Building, San Francisco.

CONGDON, Charles Henry (deceased). He lived in San Francisco and in Bakersfield, California.

EDWARDS, George S. (deceased). He was a commercial banker in Santa Barbara, California.

Class of 1879 (continued)

NICHOLSON, W.H. (deceased). He lived in San Francisco.

O'CALLAGHAN, James. San Francisco.

SANDER, H.W. (deceased). He lived in San Francisco.

Class of 1880.

CARROLL, Henry Winans. 309-17th. Street, Seattle, Washington.

CONRAD, John G. (deceased). His office was at 204 Sansome Street, San Francisco.

GARTLWAITE, E.H. (deceased). His address was 1476 Scenic Avenue, Berkeley, California.

LONG, Louis Hintzleman (deceased). He was Vice President of Railway, Vallejo, California.

Class of 1881.

LINDLEY, Douglas (deceased). He lived in Sacramento, California. Received Certificate of Eminent Scholarship.

Class of 1882.

JACKSON, Robert D. (deceased). He was a mining engineer in San Francisco and in Reno, Nevada.

WEED, Howard L. Spokane, Washington.

Class of 1884.

BRADLEY, Frederick W., mining engineer. Born in Nevada County, California, February 21, 1863. He began mining in California in 1884. President of the following companies: Alaska Juneau Gold Mining Company; Alaska United Gold Mining Company; Bunker Hill and Sullivan Mining and Concentrating Company; Ocean Shore R.R. Company; Registration and Securities Company; Treadwell

Class of 1884 (continued).

Yukon Company; and the V.P. Atolia Mining Company. Director in the following companies and institutions: Golden Gate Gold Mining Company; First National Bank of Juneau; American Trust Company; Atlas Imperial Diesel Engine Company; Leadhill Mines, Inc.; San Francisco Commercial Company; Spanish Mining Company; and the Sullivan Mining Company. Director or trustee of: San Francisco Chamber of Commerce; Tamalpais School and Old People's Home; Young Men's Christian Association; and Young Women's Christian Association. Member of: American Institute of Mining and Metallurgical Engineers; Mining and Metallurgical Society of America; Alaska Mining and Engineering Society; and the California Academy of Sciences. Treasurer of: the Canadian Institute of Mining and Metallurgy and of the Institute of Mining and Metallurgy of London. He is listed in "Who's Who in America" and in "American Men of Science".

Address: 2716 Pacific Avenue, San Francisco.

HOEFER, Eugene (deceased, 1899).

Class of 1885.

MYRICK, Charles W. 2709 Pine Street, San Francisco.

RUSSELL, Thomas B. Hayward, California.

SUTTON, J.G. Heating Company, 51 First Street, San Francisco.

Class of 1886.

MOFFITT, James H. President, Blake Moffit and Towne Company, San Francisco.

TURNER, Robert C., mining engineer (retired). 2517 Benvenue Avenue, Oakland, California.

Class of 1887.

CASTLE, Neville H. Fairbanks, Alaska.

KNAPP, Moses R., mining engineer. 207 South Broadway, Los Angeles; 1382 Webster Street, Oakland, California.

CARY, F.W. (deceased).

RICHARD, Thomas (deceased), mining engineer. His residence was 2720 Bancroft Way, Berkeley, California.

Class of 1888.

BOOTH, Franklin. Manager, Sierra Talc Company, Douglas Island, Alaska.

BOSQUI, F.L. (deceased). He was a metallurgical engineer in South Africa.

Class of 1889.

JONY, Henry James. 2420 Mission Street, San Francisco.

Class of 1890.

LAKENAN, C.B.

RICH, Frank E. Woodstock Gold Mining Company, Karangahake. Auckland, New Zealand.

SMITH, Dr. William S.T., B.L., geologist. Born in Stockton, California, April 2, 1869. Hopkins, 1890-91; fellow, 1895-97; Ph.D., 1896. He was professor of mathematics and natural science, Occidental College, 1894-95; professor of mathematics, California State Normal School, Chico, 1897-98; assistant in mineralogy, California, 1899-1900; assistant geologist, United States Geological Survey, 1900-07; associate professor of geology and mineralogy, Nevada, 1906; professor, 1907-13; consulting geologist since 1912; assistant at California, 1898; lecturer,

Class of 1890 (continued).

Bryn Mawr College, 1922-23. Associate of Arts. Member of the Geological Society (Councellor, 1913). Specialty: petrology; graphic methods in geology. He is listed in "American Men of Science". Address: 640 Tennyson Avenue, Palo Alto, California.

Class of 1891.

BALDWIN, Harry C., mining engineer. 132 Market Street, San Francisco.

CHESTNUT, John R. (deceased). He was manager of Mining Company, San Vincent Mines, Mexico. His home address was 1652 Webster Street, Oakland, California.

EICHBAUM, T.E. (deceased).

MERRILL, Charles W., B.S., metallurgist. Born in Concord, New Hampshire, December 21, 1869. He designed, installed, and operated many reduction plants in the United States, Canada, and Mexico. He obtained more than twenty-five patents in the United States and foreign countries for metallurgical processes and apparatus. President of the Merrill Company, San Francisco; Merco Centrifugal Separator Company, Ltd.; and the Alloys Company. Director, Union Dredging Company; chief of Division of Collateral Commodities, United States Food Administration, Washington, 1917-18; executive, Commercial Minerals Company and California State Chamber of Commerce; chairman, California State Mining Board, 1930; regent, University of California, 1924-25; trustee, School of Mechanical Arts. Member of American Institute of Mining and Metallurgical Engineers (vice president, 1924);

Class of 1891 (continued).

Inventors' Guild; Mining and Metallurgical Society of London; Australian Institute of Mining Engineers; and Chemical, Metallurgical, and Mining Society of South Africa. Awarded James Douglas International gold medal by A.I.M. and M.E. for distinguished international metallurgical achievements. Specialty: cyanide process in treatment of precious metal ores. He is listed in "Who's Who in America" and "American Men of Science". Office: 343 Sansome Street, San Francisco. Residence: 2311 Warring Street, Berkeley, California.

MILLER, William P. (deceased), mineralogist. His office was at 416 Montgomery Street, San Francisco.

PALACHE, Charles, B.S., mineralogist. Born in San Francisco, California, July 18, 1869. Fellow, 1892-93, honorary fellow, 1893-94, University of California, preparatory to Ph.D. degree. During this time he taught elementary mineralogy and prepared a thesis in petrography which led to the position of teaching mineralogy at Harvard, 1896-1901. Assistant professor, 1902-10; professor since 1910. Curator of Mineralogy Museum, 1923. Member, A.A.A.S.; Geological Society; Mineralogical Society (president '21); American Academy of Mineralogy. Special work on: crystallography and paragenesis of American minerals, mineralogy of Franklin Furnace, New Jersey, the two circle goniometer. He is listed in "Who's Who in America" and "American Men of Science". Address: 106 Appleton Street, Cambridge, Massachusetts.

Class of 1892.

BLOOD, George D., consulting engineer. 1495 Euclid Avenue, Berkeley, California.

Class of 1892 (continued)

CRAIGIE, William D. (deceased). He lived in Greenville, California.

HALS, Edward Francis, civil engineer. Later he studied at Columbia School of Mines. Address: 320 Sansome Street, San Francisco.

RICH, Francis A. 314 Victoria Arcade, Queen Street, Auckland, New Zealand.

STONE, George Frederick, Forrest, Sierra County. Address: 1001 Jackson Street, Oakland, California.

Class of 1893.

CARPENTER, William H., M.D. New York City.

GOODING, Louis Ebenezer. Iron Mask Mine, British Columbia.

THEBY, Frederick S. 1275 Alice Street, Oakland, California.

POSADA, Juan de la Cruz, M.S. He went to Columbia, his native land, and started work with Las Minas Del Zancudo - the largest mining camp in that country. He was assistant manager the first three years and manager the following four years. Mr. Posada reports that ore in these mines was rich in sulphides, with some free gold and plenty of silver. The metallurgical process was a combination of crushing, concentration, and smelting to iron mattes. To improve the very primitive systems in use, he constructed the first three California stamp mills (Molines Californianos) of 40, 20 and 15 stamps and of some 800 pounds in weight per stamp. The work, including the Pelton wheel for power, the mortars, etc., was casted in the machine shop of the mine, from patterns following the California designs. Mr. Posada introduced from Fraser and Chalmers the first Frue Vanners for concentration and used the first silver plated sheets of copper for the catching of free gold. At the smelter he

Class of 1893 (continued)

constructed the first long roasting furnace in steps and increased the size of the crucibles in the reverberatory furnaces for matte smelting after the Denver practice. In the coal mines, situated at some distance from the smelter, he installed the first single rope cableway for transportation. The castings for the installation were made at the shops of the company from patterns, provided by Mr. Posada, according to California design. Ever since, many California stamp mills have been imported or made in the country, and a number of cable-ways have been used for mining and other purposes. After leaving the Zancudo Mines, Mr. Posada was employed as consulting engineer for various mines in Columbia. He introduced the Pachuca System of cyaniding, the Pebble Mills for fine crushing, the Cornish System for pumping, the electrically driven centrifugal pumps, the electric hoists for shafts, etc. After ten years of this work, in many unhealthful regions of the country, malaria broke Mr. Posada's health and he had to give up mining. In the last twenty-five years he has been engaged in industrial enterprises. General manager, Antioquia Railway, five years; manager and organizer, Public Service, City of Medellin, three years; president and organizer of the largest industrial company of the country - Compania Colombiana De Tabaco - eleven years. Professor of mining, geology and industrial economics in the Escuela Nacional De Minas De Medellin during the last six years to the present. Mr. Posada writes: "It gives me great pleasure to remind my pupils of the teachings of such men as Le Conte, Lawson, Christy, Rising, etc. in my beloved Alma Mater." Address: Medellin, Republic of Colombia.

Class of 1893 (continued)

RANSOME, Frederick Leslie, B.S.; P h. D., 1896. Born in Greenwich, England, December 2, 1869. Fellow in geology (teaching mineralogy), University of California, 1893-95. He was assistant in mineralogy and petrography at Harvard, 1896-97; assistant geologist, 1897-1900, geologist, 1900-23, United States Geological Survey; in charge of sections of western areal geology, 1912-16, and metalliferous deposits, 1912-23; professor of economic geology, University of Arizona, 1923-27; dean of the graduate college, 1926-27; professor of economic geology, California Institute of Techn ology, 1927; consulting geologist, United States Bureau of Reclamation and Metropolitan Water District of Southern California since 1928. Lecturer on ore deposits, University of Chicago, 1907; Silliman lecturer, Yale, 1913. Fellow, Geological Society of America and A.A.A.S.; member of National Academy of Sciences (treasurer, 1919-24); National Research Council (treasurer, 1919-24); American Institute of Mining and Metallurgical Engineers; Society of Economic Geologists (president, 1926-27); American Chemical Society; Washington Academy of Sciences (president, 1918); Geological Society of Washington (president, 1913); American Academy of Political and Social Sciences; Sigma Xi; Phi Beta Kappa. Specialty: economic geology in connection with gold, silver, lead, and copper deposits in western United States, engineering geology. He is listed in "Who's Who in America" and in "American Men of Science". Address: California Institute of Technology Pasadena, California.

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Class of 1893 (continued).

SIMONDS, Ernest N. (deceased). He was a consulting metallurgist. His residence was 2434 College Avenue, Berkeley, California.

Class of 1894.

EASTON, Stanley A., B.S., mining engineer. Born in Santa Cruz, California, April 7, 1873. Vice president and manager, since 1902, of Bunker Hill and Sullivan Mining and Concentrating Company, one of the largest lead and silver mines in the world. President, Sullivan Mining Company and Caledonia Mining Company; president of the board of regents, University of Idaho, and of the State Board of Education. Member of the Executive Committee, Region No. 11, Boy Scouts of America; American Institute of Mining and Metallurgical Engineers; Mining and Metallurgical Society of America; American Mining Congress; Idaho Mining Association; Institute of Mining and Metallurgy of London; Delta Kappa Epsilon. He is listed in "Who's Who in America". Address: Kellog, Idaho.

DONOHOE, John P., coal operator. Born in Greensburg, Pennsylvania, February 12, 1873. President of Donohoe Coke Company; Donohoe Water Company; and the Potter Coal and Coke Company. Chairman of the board, John P. Donohoe and Company and S.F. Potter and Company. Member of American Society of Mining and Metallurgical Engineers. He is listed in "Who's Who in America". Home Address: 5930 Howe Street, Pittsburg, Pennsylvania. Office: Greensburg, Pennsylvania.

URIBE, Enrique, Medellin, Columbia, South America.

WEEK, Charles A., mining engineer. Treadwell Gold Mine Company, Douglas Island, Alaska.

Class of 1894 (continued)

HAY, Henry. He operated on the Gold Coast of West Africa.

Class of 1895.

COLT, Samuel, Jr. Foreman, Inspiration Copper Company, Inspiration, Arizona.

ESCABAR, Mario. Medillin, Columbia, South America.

HOFFMAN, George J. 566-31st Street, Oakland, California.

LINKEY, William H. Kellog, Idaho.

MADERO, Francisco I. Former President of Mexico.

RICKARD, Edgar. B.S. Post graduate course in Mining, University of California, 1896. Born in Pontgibaud, France, January 17, 1874, and brought to the United States in 1875. He was a mining engineer in the United States, Mexico, and Australia, 1896-1905; publisher of technical mining publications, San Francisco and London, 1906-16; director, American Commission in London, 1914-16; administrative assistant to Herbert Hoover in all war and post war organizations. Appointed in 1921, by President Harding, as member of the Purchasing Commission for Russian Relief (to expend $20,000,000). President, Pejepscot Paper Company; Androscoggin Water Power Company; Hazeltine Corporation. Member of American Institute of Mining and Metallurgical Engineers (life; vice president); Mining and Metallurgical Society of America; American Child Health Association (treasurer); treasurer of the White House Conference on Child Health and Protection. Decorated Chevalier Legion d' Honneur (French) 1919; Officer, Order of the Crown, (Belgium), 1919, Gold Medal of Honor, University of Vienna, 1922; Commander, Order Polonia Restituta (Polish), 1923; Com-

Class of 1895 (continued)

mander, Order of Leopold II (Belgium), 1924. The Golden Grand Cross of Honor (Austrian), 1925. Clubs: University, Broadstreet, Bankers, National Republican (New York), Woe Burn, Ox Ridge Hunt, Tokeneke (Darien, Connecticut); Norton (Connecticut) Yacht. He is listed in "Who's Who in America". Office: 42 Broadway, New York City. Home address: "Woodsedge," New Canaan, Connecticut.

SYLVESTER, A.H., B.S., topographer (retired). Born in Woodside, California, May 25, 1871. He was with the United States Geological Survey, 1897-08; forest supervisor, United States Service, 1908-31. Associate of Arts. Member, Society of Foresters; Civil Engineers, Washington; Geological Society; Columbia River Archeological Society. Specialty: glaciers and physiography, including the volcanology of Mt. Hood, Oregon; geology and physiography of the Wenatchee River country, Washington. He is listed in "American Men of Science". Address: 513 Hawthorn Street, Wenatchee, Washington.

Class of 1896.

BRACKENBURY, Cyril, B.D., mining engineer. He has worked many mines in various countries. Author of "Roving in Four Continents" - a record of travels and experiences of a mining engineer in the wilds of the Balkans, the Caucasus, Siberia, and several other countries. Address: Newton Abbot, Devonshire, England.

BRADLEY, Phillip Read, B.S., mining engineer. Born in Georgetown, California, October 12, 1875. He was formerly a mining superintendent and manager and has been a construction engineer since 1897. President, Alaska Juneau Gold Mining Company, Treadwell

Class of 1896 (continued)

Yukon Company; Yellowpine Company; vice president, Pacific Mining Company; Atolia Mining Company; Bunker Hill and Sullivan Mining and Concentrating Company; First National Bank of Juneau; member of American Institute of Mining Engineers; Mining and Metallurgical Society. Clubs: University, Engineers, Faculty (University of California), Orinda Country Club. He is listed in "Who's Who in America". Office: 1022 Crocker Building, San Francisco. Home address: 2944 Avalon Avenue, Berkeley, California.

BENJAMIN, E. W., mining engineer. Born in Vallejo, California, February 4, 1859. He became a pattern maker's apprentice in 1874; engaged in special work in New Almaden Mines, 1879-80; department engineer, Oakland Street Department, 1887; director general of mining department, California Midwinter International Exposition, 1893-94; organized engineering firm of Benjamin, Hunt and Meredith, 1898; and engaged in construction of numerous large mining and industrial plants. Represented United States Government by special appointment of the President at the American Mining Congress, November, 1916; retired from active field work in 1923; and since then has been engaged, in San Francisco, in construction practice exclusively. He was one of the pioneers in the movement to establish the United States Bureau of Mines. President of Mariposa Commercial and Mining Company; trustee of Mechanic's Institute of San Francisco, 1914. Member of American Institute of Mining and Metallurgical Engineers (at one time president); also secretary of California

Class of 1896 (continued)

Miners Association and president of the California Water and Forest Society. Clubs: Bohemian (San Francisco ; president 1916-18, camp captain, Bohemian Grove, since 1914). He is listed in "Who's Who in California". Address: 745-47th Avenue, San Francisco.

LOUDERBACK, George Davis, A.B., geologist. Born in San Francisco, California, April 6, 1874. Ph.D., University of California, 1899. Assistant in mineralogy, University of California, 1897-1900; professor of geology and physics, University of Nevada, 1900-03; professor of geology, 1903-06; assistant professor of geology University of California, 1906-07, associate professor, 1907-17, professor, 1917-, dean, College of Letters and Sciences, 1920-22 and 1930- ; research assistant, Carnegie Institute, 1903-05. Member of Committee on Sedimentation, National Research Council, 1920-24. He was in charge of a geological expedition in the interior of China for the Standard Oil Company of New York, 1914-15, later for the Chinese Government, 1915-16, and the Philippine Islands, 1916. Chairman of committee on geology and mineral resources, State Council of Defense, 1917-19, in charge of co-operative war mineral investigation in California for the United States Geological Survey, the United States Bureau of Mines, and the State Council of Defense, 1918-19. Member of Pacific Coast sub-committee on geology of the National Research Council, 1917-19; California State Commission on St. Francis Dam failure, 1928; other State construction boards on safety of dams since 1928. Fellow, A. A. A. S.; Geological Society of America (secretary,

Class of 1896 (continued)

Cordilleran Section, 1906-14; chairman, 1919-22). Member of American Institute of Mining and Metallurgical Engineers; California Academy of Sciences; Washington Academy of Sciences; American Geological Society; Mineral Society of America; Society of Economic Geologists; American Petroleum Geologists; Seismological Society (secretary, 1906-10); Phi Kappa Sigma; Theta Tau; Phi Betta Kappa; Sigma Xi; Phi Lamda Epsilon; Tau Beta Pi. Clubs: Faculty (Berkeley), Commonwealth, Engineers, Sierra, and Bohemian (San Francisco). Contributions on: west coast stratigraphy; mineralogy; Physiographic and structural geology; sedimentation; basin range structure; Physical history of Pacific Coast, China, and Philippine Islands. He is listed in "Who's Who in America" and "American Men of Science". Address: 107 Amadore Road, Berkeley, California.

Class of 1897.

ENGLISH, Norris. President, Sugar Company. Address: 1201 California Street; San Francisco.

HOAG, Edward H., mining engineer. Manager, Minera Puestro Mine, South America. Address: Casala Sinalva, Sonora, Mexico.

KENNEDY, Eugene P., mining engineer. Address: 276 Funston Street, San Francisco.

KINZIE, R.A. A pioneer to Alaska.

Class of 1898.

FOSTER, Robert Arnold, B.S., mining engineer. Born in Sacramento, California, January 19, 1877. Construction engineer, Arizona

Class of 1898 (continued)

Copper Company, Ltd., 1901-03; chief engineer and general manager, Mining Corporation, Ltd., Portland, Oregon, 1901-03; president, Alaska Peninsular Coal and Coke Company, 1903-10; president of Lewiston-Clarkson Improvement Company and the Mexican Coal and Coke Company. Member of American Society of Civil Engineers; Sigma Alpha Epsilon; Sigma Xi; Mason (32°, Shriner); Elk. Clubs: University, Mexico City. He is listed in "Who's Who in America". Address: c/o L.B. Leighton, Eagle Pass, Texas. Home address: Las Esperanzas, Coahuila, Mexico.

HUFF, William M., assayer. 630 McKinley Avenue, Kellog, Idaho.

MONROE, Charles H., mining engineer. Connected with mining operations, Dutch Flat. Office: Hobart Building, San Francisco.

MORLEY, Walter S., assistant professor of metallurgy, University of California. Address: 1425-6th Avenue, Oakland, California.

WIGMORE, Cyril, hydraulic engineer. 108 West 6th Street, Los Angeles.

WILLIAMS, Alphous Fuller, B.S., mining engineer. Born in Oakland, California, June 21, 1874. He is with De Beers Consolidated Mines, Ltd., Kimberley, South Africa. Engineer, 1899-1900; assistant general manager, 1906; general manager since 1906. He is listed in "Who's Who in America".

Class of 1899.

BAGLEY, E.M. Balatoc Mining Company, Box #249, Gagino, Philippine Islands.

BELKNAP, R.R.

BELL, B.L.C. (deceased). He lived in Wilmington, California.

Class of 1899

BUDLEMAN, H.D., mining engineer, West End Consolidated Mining Company, Tonopah, Nevada.

BURK, H.A. Superintendent, Cyanide Plant, Fresnello Company, Zacatecas, Mexico.

COLLIER, John Henry. Construction Mining Railway. Address: 333 Kearney Street, San Francisco.

CRAIG, John W. Lamanda Park, California.

DENICKE, Ernest Henry, B.S., mining engineer. Born in San Francisco, California, October 11, 1876. He attended the Columbia School of Mines and Columbia College of Mines, 1899-1900, and is now engaged in practice of mining engineering in San Francisco. Member of Sigma Nu. He is listed in "Who's Who in California". Address: 114 Sansome Street, San Francisco.

EATON, Lewis F.

FLOOD, Fred H. (deceased). He was a metallurgical engineer with the Redwood Manufacturing Company.

GEISENDORFER, Henry A. Superintendent of mines, International Smelting Company. Address: Room #6, University Club, Salt Lake, Utah.

HOFFMAN, Karl F. 566-31st. Street, Oakland, California.

JULIEN, George W. Yreka, California.

NEWMAN, Maurice A. 2320 Clay Street, San Francisco.

RAWLINGS, S.L. 65 Woodland Way, Piedmont, California.

SCOTT, Wesley B. (deceased).

SIMPSON, Francis M. 1408 Leavenworth Street, San Francisco.

SINCLAIR, Wm. J., B.S., Ph.D. Born in San Francisco, California,

Class of 1899 (continued)

May 13, 1877. Fellow, Princeton, 1904-05; instructor in geology, Princeton, 1905-16; assistant professor, 1916-23; associate professor, 1923-30; professor since 1930. Assistant, United States Geological Survey; geologist, American Museum of Natural History. Specialty; vertebrate paleontology; anthropic, petrographic, and stratigraphic geology; vertebrata of Santa Cruz beds of Patagonia; Edentata of the California Pleistocene; North American non-marine Tertiary sedimentation and life conditions. Associate of Arts. Member, Geological Society; Paleontological Society, Philosophical Society. He is listed in "American Men of Science". Address: Princeton University, Princeton, New Jersey.

THANE, Bartlett L. (deceased), mining engineer. His address was: Crocker Building, San Francisco.

YOUNG, Edward L. Garden Grove, California.

YOUNG, George Joseph, B.S., mining engineer. Born in San Francisco, California, October 3, 1876. He was assistant analysist, department of mining, University of California, 1890-1900; assistant professor of metallurgy, 1900-1903; professor of mining and metallurgy, University of Nevada, 1903-1913; professor of mining, University of Minnesota, 1913-1916; and professor of metallurgy, Colorado School of Mines, 1916-1917. He was also director of Co-operative Laboratory of Potash Investigations of the Bureau of Soils, Department of Agriculture, and of Mackay School of Mines. Assistant editor-in-chief, Engineering Mining Journal, 1918-1919; associate

Class of 1899 (continued)

editor, 1919-1932. Member, American Institute of Mining and Metallurgical Engineers and Mining and Metallurgical Society of America. Clubs: Engineers, Sierra Club. Specialty: mine ventilation, cyanide process, and mining of unstratified deposits. Author of "Elements of Mining" and "The Working of Unstratified Mineral Deposits". He is listed in "Who's Who in America" and "American Men of Science". Office: 883 Mission Street, San Francisco. Residence: 5928 Keith Avenue, Oakland, California.

Class of 1900.

ANDERSON, A.J. General manager and consulting engineer, New Gold Fields of Venezuela, Central America. Address: c/o Campagni Aeropostale, Caracas, Venezuela.

BROWN, W.L. President, Anglo American Mining Corporation, 1005 Mills Building, San Francisco.

DICKERSON, Roy E., B.S. (M.S., 1910; Ph.D., 1914). Born in Monticello, Illinois, August 8, 1878. He was principal and teacher in California high schools, 1900-18; assistant curator, department of paleontology, California Academy of Sciences, 1914-17; curator, 1917-19; honorary curator, 1919; superintendent of geology, Standard Oil Company of California, 1918-26; chief geologist for Pacific Division, Atlantic Refining Company, since 1928. He was assistant instructor, University of California, 1910-12, and instructor, 1912-13. Associate of Arts. Member, Paleontological Society (secretary of Pacific Division, 1912; vice president, 1913; president 1914); Geological Society;

Class of 1900 (continued)

California Academy of Science; Le Conte Geological Club (secretary, 1918). He specialized in paleontology and geology of the Pacific Coast and Mexico, the fauna of the Eocene epoch and the Tertiary period of Peru, Southern California, and the Philippines. He is listed in "American Men of Science". Address: Atlantic Refining Company, Room #405, Edificio La Metropolitiana, Havana, Cuba.

GOODDALE, D. (deceased), mining engineer. His residence was 2301 Stuart Street, Berkeley, California.

HASTLETINE, R.S. General manager, Grubersen Corporation. Address: Post Office Box #1106, Dallas, Texas.

HILTON, W.H. (deceased).

MEIN, William Wallace, B.S., mining engineer. Born in Nevada City, California, July 19, 1873. He assisted his father in mining work in California, Alaska, and South Africa until 1900. He managed mines in South Africa and became consulting engineer under Wernher Beit, London, 1900-10; consulting practice and director, International Nickel Company, 1911-13. President, Bishop Corporation; Bishop Oil Corporation; Calaveras Cement Company; Mines and Commerce of Delaware, Inc.; director, North American Investment Corporation and American Trust Company, San Francisco. Assistant secretary to Secretary of Agriculture, 1918; member of American Institute of Mining and Metallurgical Engineers; A.A.A.S.; Canadian Institute of Mining and Metallurgy; South African Institute of Engineers; and Mining and Metallurgical Society; Beta Theta Pi. Clubs: Bankers, Pacific

Class of 1900 (continued)

Union, Bohemian, San Francisco Golf, Burlingame Country, Menlo Country (San Francisco), Cypress Point Golf (California), Metropolitan, Engineers (New York), Chevy Chase (Washington). He is listed in "Who's Who in America" and "American Men of Science". Office: 315 Montgomery Street, San Francisco.

MORRIS, Fred L., mining engineer. Office: Monadnock Building, San Francisco. Residence: 1975 El Dorado Avenue, Berkeley, California.

MORSE, H.D. Chief engineer, Butte and Superior Copper Company, Atherton Place, Butte, Montana.

NICHOLLS, J.C., mining engineer. Assistant to the president of the International Nickel Company, 25 King Street, West Toronto, Canada.

OLIVER, Edwin Letts, B.S. Born in San Francisco, California, November 9, 1878. Surveyor, North Star Mines, 1903-10; metallurgical practice, 1906-10; president of the following companies: Oliver United Filters, Inc.; Dorr-Oliver Corporation; Oliver-Sherwood Company; Idaho Maryland Consolidated Mines, Inc.; Tightener Mines Company. Vice president of the California Gap Company. He patented apparatus for electrolytic recovery of gold and silver from ore treated by the cyanide process, 1906; Oliver Continuous Filter and many devices in connection therewith, 1909; also a process for precipitation of metals from cyanide solution and the regeneration of cyanide solutions, filtration as applied to the manufacture of paper, cane and beet sugar, heavy chemicals, soda salt, starch, de-watering of sewerage, cyanidation of gold and silver ores, flotation and concentration. Chemist for Metallurgical and Mining

Society of South Africa; member of Alumni Council of University of California; American Institute of Mining and Metallurgical Engineers; Mining and Metallurgical Society of America; Chemical, Metallurgical and Mining Society of South Africa; Society of Golden Bear; Sigma Xi; Delta Epsilon; Sigma Gamma Epsilon. Clubs: Bohemian, Engineers, Commercial (San Francisco), Claremount Country, Mount Diablo Country, Tahoe Power Boat. He is listed in "Who's Who in America" and "American Men of Science". Office: Federal Reserve Bank Building, San Francisco. Residence: 60 King Avenue, Piedmont, California.

OLIVER, Roland L. After graduating he worked at day labor in the blasting explosives plant of the California Cap Company, Stege, California; sales and demonstration work in the field of mining, 1901; explosives research laboratory, California Cap Company, 1902-04; reconstructed and supervised operations of sulphuric and nitric acid plants and iron pyrites mine of Leona Chemical Company, Oakland, California, 1905-12; returned to explosives business as general manager of California Cap Company 1909-16; designed, supervised construction and directed operations of three Ordinance Loading Plants in New Jersey as a civilian agent of the United States Government, 1917-18; president and general manager, California Cap Company, 1919 to date. He patented and developed the Delay Electric Exploder for detonating blasting explosives, 1910; was appointed by War Congress, in 1917, on committee to develop a substitute for T.N.T. which enabled the limited supply of the latter to extend its essential usefulness

Class of 1900 (continued)

four-fold. In 1927 he compiled a handbook, "Detonators for High Explosives", which is extensively used in mining colleges and in the field. Mr. Oliver says: "I am indebted to the University of California for the ground work that has made possible most of my engineering work." He further reports that the various subjects he studied while at the University of California have been of inestimable value in all his undertakings and that the "esprit de corps", amongst classmates and others, did much toward forming a background for self-reliance and culture. Address: 1540 San Pablo Avenue, Oakland, California.

PHELPS, F.W. 6452 Hillegas Avenue, Oakland, California.

REID, J.A. (deceased).

SMITH, D.T., mining engineer. Post Office Box #366, Oroville, California.

SPERRY, J.C. President, Magnavox Company. Address: Hawthorne Terrace, Berkeley, California.

TRACY, E.H. 855 Hayes Street, San Francisco.

WILLIAMS, C., Jr., civil and hydraulic engineer. Private practice.

WISE, Alexander (deceased), mining engineer, Virginia City, Nevada.

Class of 1901.

BANGLE, H.W., metallurgist. Address: 1804-6th Avenue, Oakland, California.

BECK, E.L., mining engineer. Address: Box 270, Sonora, California.

BRADLEY, Walter Wadsworth, E.M., 1917. He was associate editor of the Mining and Science Press, San Francisco, 1903-4; mill

Class of 1901 (continued)

superintendent, Standard Consolidated Mining Company, California, 1905-6; assistant manager and engineer, Ventanas Mining and Exploring Company, Ltd., Mexico 1907-8; chemist, De Lamar Company, Ltd., Idaho, 1909-1[illegible] laboratorian, field assistant, statistician, and, later, deputy state mineralogist, State Mining Bureau and State Division of Mines, California, 1912-28; state mineralogist since 1928, in charge of statistics of mineral production and geological and mineral resources, surveys of magnesite, manganese, chromite, barite , and quicksilver resources of California. He is a member of the Mining and Metallurgical Engineers' Association and the American State Geologists. He is listed in "American Men of Science". Address: State Division of Mines, Ferry Building, San Francisco.

BROWNE, R.S., metallurgical engineer. Address: 1630 Arch Street, Berkeley, California.

CORNISH, H.L. (deceased). San Francisco.

De LASHMUTT, I. (deceased).

GRIFFITHS, M.S. (deceased), mining engineer. His address was 441 Clover Leaf Way, Monrovia, California.

HOFFMAN, John D.

KERFOOT, L.S. Superintendent of city parks, City Hall, Oakland, California.

LAIST, Frederick, B.S., metallurgist. Born in Cincinnati, Ohio, October 30, 1878. He was chief chemist and superintendent of the blast furnace department, assistant superintendent and general superintendent, Anaconda Reduction Works;

Class of 1901 (continued)

metallurgical manager, Anaconda and Great Falls Reduction Works, Anaconda Copper Mining Company, 1914-16; general metallurgical manager, 1916. He is now metallurgical manager, also consulting engineer for the Chile Copper Company and Andes Copper Company. Professor of science, Colorado State School of Mines, 1921. Member of American Chemical Society; American Institute of Mining Engineers; Mining and Metallurgical Engineers (vice president, 1920; chairman, Mont. Sect., 1919); Sigma Xi. Mr. Laist has done notable work in the development of copper leaching and electrolytic zinc process. He is listed in "Who's Who in America" and "American Men of Science". Address: 25 Broadway, New York City.

LEACH, E.R., mining engineer. Address: 217 Hillside Avenue, Piedmont, California.

MOULTHORP, H.L., mining engineer. Address: 1112 Pacific Avenue, Alameda, California.

NAHL, A.C., mining engineer. La Paz, Mexico.

OSMONT, V.C. President, Bay Shell Company, Room 425-519 California Street, San Francisco.

RICHARDSON, W.L., mining engineer. Address: 701 Marsh Avenue, Reno, Nevada.

SCHAW, W.B. Sacramento Pipe Works, 2625 P. Street, Sacramento, California.

SELBY, Paul. Address: Box 1021, Johannesburg, Transvaal, South Africa.

SMITH, H. Dunbar.

SPECHT, R.C.

Class of 1901 (continued).

WAGOR, E.C., U.S. assay officer, superintendent, Smelting and Refining Department, 32 Old Slip, New York City.

WINNS, O.C. (retired). Address: 2521 Van Ness Avenue, San Francisco.

Class of 1902.

ASPLAND, C.H. He died in South Africa in 1929.

BAIRD, F. (deceased).

BOWMAN, B. Upper Sumas, British Columbia.

BRALY, H.H. (deceased).

CHILDS, H.M., B.S. He was a miner for the Anacortes Mining Company, near Barron, Washington, 1902; miner, Eureka Mining Company, Barron, Washington, 1903; compressor-man, Mammoth Gold Mining Company, Barron, Washington, 1903; amalgamator, Mammoth Gold Mining Company; mill superintendent, same company, in 1903. Amalgamator, Mt. Baker and Yale Gold Mining Company, Yale, British Columbia, 1904; mill man in concentrator, Ethel Copper Company, Index, Washington, 1904; amalgamator, 3rd Relief Gold Mining Company, Erie, British Columbia, 1904; mill superintendent, same company, 1904-07; mill man in contractor, Bunker Hill and Sullivan M. and C. Company at Kellog, Idaho, 1907-08; mill surveyor and chief engineer, same company, 1908-28; captain in 403rd Engineers, U.S. Army, 1918-19. He was disabled by sleeping sickness, 1928-36. As chief engineer for Bunker Hill and Sullivan M. and C. Company at Kellog, Idaho, Mr. Childs had charge of all underground surveying in Bunker Hill Mine, Last Chance Mine, Caledonia Mine, Sierra Nevada Mine, Crescent Mine, and Big Creek Mine. He directed operations in various subsidiary

Class of 1902 (continued)

mines controlled by the Bunker Hill and Sullivan M. and C. Company, as Big Creek, Crescent, Alice Mine near Mullan, Idaho, and Doughlas Mine in Pine Creek. He also had charge of all leasers in the old mine workings of above mines. He was allowed to do private work, as city engineer of Kellog, Idaho; leaser in Yankee Boy Mine in Big Creek (new Sunshine Mine); secretary, Intermountain Copper Mining Company near Iron Mountain, Montana; Rose Con. Mine near Libby, Montana; and Roy Wallace Mine, Wassilla, Alaska. He examined mines for the Bunker Hill Company in Idaho, Montana, Washington, and British Columbia. He was expert witness in several important mining litigation cases. Address: 3168 Hope Street, Huntington Park, California.

COLBATH, J.C., mining engineer. Address: Regal Road, Berkeley, California. Honorable mention for distinguished scholarship.

COLDWELL, F.B. (deceased), mining engineer. His residence was 1406 Hawthorne Terrace, Berkeley, California.

DAKIN, F.H., mining engineer. Texas Mining and Smelting Company. Address: 2811 Hillside Drive, Burlingame, California.

DRUCKER, A.E., metallurgist. Address: 1817 B Street, Pullman, Washington. He worked in Korea.

FANEUF, S.C. Assistant general manager, Amparo Mining Company, Nueva Compania de la Mazata y Anexas, Compania Minera. La Predra, Bola. Etzatlan Jalisco, Mexico.

FRANKS, H.E. Address: Route 3, Sacramento, California.

GORRILL, C.H. General contractor, 3615 Piedmont Avenue, Oakland, California.

Class of 1902 (continued).

HALLEY, R.A., mining engineer. Department of Interior, United States Government. Address: 1300 S.W. 5th Avenue, Portland, Oregon.

HILPISCH, Carl (deceased).

LORENZ, G.B. (deceased).

NIS, E.A. He operated in South Africa.

PICKETT, R.D.

RHODES, C.I. (deceased). He was consulting engineer with Chester H. Loveland Engineers, Inc., 485 California Street, San Francisco.

RICHMOND, C.P., mining engineer. Address: 4200 Harbor View Avenue, Oakland, California. Honorable mention for distinguished scholarship.

ROWLANDS, C.H. (deceased). Honorable mention for distinguished scholarship.

STEBBINS, E.W., mining engineer. Address: 819 Mills Building, San Francisco.

WEBER, F.F. Vice president, Weber-Costello Company, Chicago Heights, Illinois.

WRIGHT, C.N., Los Angeles.

Class of 1903.

ALLING, Mark N. (deceased). He did research work, mining for gold in ancient auriferous (lava buried) river beds. His residence was 284 Perkins Street, Oakland, California.

ALMIND, A.E. 1726 East 4th Street, Long Beach, California.

BURKE, E.A. (deceased).

BUTLER, D. de Wolf. Awarded Joseph Bonnehiem Memorial for

Class of 1903 (continued).

scholarship, University of California.

CADOGAN, A.C., mining engineer. Address: 1080 Spruce Street, Berkeley, California.

CAHILL, E.J.

COPELAND, W.F. 3673-3rd. Avenue, San Diego, California. Honorable mention for distinguished scholarship.

DE LANCEY, C.C., mining engineer. Address: 1138 Meridian Avenue, South Pasadena, California.

HAINES, W.B., mining engineer. Address: 454 Effie Street, Fresno, California.

HOTCHKISS, H.G. (deceased).

HUGHES, A.F.

HYDE, F.M. (deceased).

LEPPIEN, E. 1506 East 53rd Street, Oakland, California.

McBOYLE, E. President, Idaho Maryland Mines Company 368 Russ Building, San Francisco.

PITCHFORD, William James. Manager, New Jagersfontein Mining Exploration Company. Box 2, Jagersfontein O.F.S. Province Union of South Africa.

PUTNAM, D.G.

RODDER, H.C. 788 West Street, Reno, Nevada.

RUCKLIDGE, A.R. Hollister, California.

SCHALLER, Waldemar Theodore, B.S., mineralogist. Born in Oakland, California, August 3, 1882. Fellow, 1903; Ph.D., University of Munich, 1912; chemist, mineralogist, and geologist, United States Geological Survey, 1903; fellow, American Academy of

Arts and Sciences; Geological Society of America (vice president, 1921; president, 1926; treasurer, 1931); and the A.A.A.S. Member of Washington Academy of Sciences; Geological and Mineral Societies of Washington; Chemical Society of American Institute; Mining and Metallurgical Engineers; Mineralogical Society of Great Britain and Ireland; Sigma Xi; Société Française de Minéralogie; and Deutsche Mineralogische Gesellschaft. Contributions on chemical, crystallographical and optical mineralogy, petrography. Author of many bulletins of the United States Geological Survey and over a hundred papers on mineralogy in various scientific journals. He is listed in "Who's Who in America" and "American Men of Science". Club, Cosmos. Address: United States Geological Survey, Washington, D.C.

SCHOENFELD, L.S.

SEGERSTROM, Charles H., banker, lawyer, miner. He was admitted to the California bar in 1903; was associate with the Sonora Abstract and Title Company, Sonora, 1903-10; was with the Dutch Consolidated Gold Mining Co., Sonora, 1910-14; and is now vice president and cashier, First National Bank of Sonora. He is president of the following companies: Nevada Mass. Company, Mill City, Nevada, since 1924; Oro Vista Orange Company, Riverside, California; Canterbury Hotel Company, San Francisco. He is vice president and director of the Tuolumne County Bank, Sonora, and director of the Port Stockton Cement Company. He was admitted to practice before the United States Supreme Court in 1928. Member of the American Bar Association; American Mining Congress; American

Class of 1903 (continued).

Institute of Mining and Metallurgical Engineers. He is listed in "Who's Who in California". Address: First National Bank Building, Sonora, California.

SMITH, S.S., mining engineer, Alaska Mineral Company, Anchorage, Alaska.

WATERMAN, H.S. 2001 Sacramento Street, San Francisco.

WISE, J.H. (deceased). Honorable mention for distinguished scholarship.

WOMBLE, L.A. (deceased).

Class of 1904.

BEALS, R.L. Wickenburg, Arizona.

BEASER, S.I., mining engineer. He was lost in the mountains in 1911 and was never found.

CAVAGNARO, D.A., mining engineer. Address: 336-62nd Street, Oakland, California.

CONNOR, T.V. (deceased).

FARNHAM, E.M., mining engineer. Address: 774 Kingston Avenue, Oakland, California.

GIRARD, F.J. 1900 26th Avenue, Oakland, California.

GOLDBERG, R.L., cartoonist. Address: McNaught Sign Times Building, New York City.

HALLORAN, A.H. 2716 Belrose Avenue, Oakland, California.

HAMILTON, F.M., mining engineer. Relief Hill Mine, North Bloomfield, Nevada County, California.

HURSH, L.L. 1518-21st. Avenue, San Francisco.

JOHNSTON, F.L., consulting engineer. Address: 1018 State Street, Santa Barbara, California.

Class of 1904 (continued).

KENNEDY, L.K. 200-3rd. Avenue, San Francisco.

KNOPF, Adolph, B.S. (M.S. 1905; Ph.D., 1909; Honorary M.A., Yale, 1923), geologist. Born in San Francisco, California, December 2, 1882. On the staff of the United States Geological Survey since 1906, geologist since 1912; associate professor of geology, Yale, 1920-23; and professor of geology since 1923. Editor, American Journal of Science since 1926. Honorable mention for distinguished scholarship, University of California, 1903-04. James M. Goewey Graduate Scholarship, 1904-05. Member of National Research Council, 1923-26; National Academy of Sciences, 1931; A.A.A.S.; Geological Society of America; Society of Economic Geologists (councilor 1925); the Washington Academy of Sciences; Sigma Xi. Clubs: Graduate, New Haven Lawn. Author of "Geology of the Seaward Peninsula Tin Deposits" (United States Geological Survey), 1908; "Ore Deposits of the Helena Mining Regions, Montana", 1913; "Geology and Ore Deposits of the Yerington District, Nevada", 1918; "Reconnaissance of the Southern Sierra Nevada, California", 1918; "The Mother Lode System of California", 1929; also reports on the geology of Alaska and western mining districts, and articles in journals. Specialty: economic geology, petrology, Precambrian geology. He is listed in "Who's Who in America" and in "American Men of Science". Address: 105 East Rock Road, New Haven, Connecticut.

LOMBARDI, M.E., petroleum engineer. Pacific Oil Company, Roble Court, Berkeley, California.

LOWRY, M.V. 2812 W. Street, Sacramento, California.

Class of 1904 (continued).

LUDLOW, T.J. (deceased).

McATEE, B.M. Alma, Colorado.

McCULLOCH, J.R. Chief assayer, Goldfield Consolidated Mining Company. Address: Box 792, Goldfield, Nevada.

McGUIRE, T.H., mining engineer and surveyor. Grass Valley, California.

MERRIAM, W.W. (deceased).

MERRILL, R.H. (deceased).

MILLER, I., pea grower. Sacramento, California.

RAVEN, G.A. 2407 N.E. 10th Avenue, Portland, Oregon.

SHEFFIELD, E.S., Jr., fruit grower. Address: Route 4, Napa, California.

STALDER, Walter, B.S. (M.S., 1907), chemist. Born in Oakland, California, April 6, 1881. He was with the San Francisco Chemical Company, 1904-07; petroleum geologist with M.L. Requa and Nevada Petroleum Company, 1909-14, consulting oil geologist since 1914; land valuation, Union Oil Company of California, 1911; Nevada Petroleum Company, 1911-13; chief geologist on valuation, Independent Oil Producers, 1914-15, consulting engineer since 1916. Private expeditions to investigate petroleum in the United States and Canada. Member, American Association of Petroleum Geologists; American Institute of Mining and Metallurgical Engineers; American Chemical Society; A.A.A.S.; Seismological Society of America; California Academy of Sciences; and the California State Chamber of Commerce. Specialties: geology of California oil fields; decrease curve method of estimation on reserves; petroleum resources of Northern California. He is listed in "Who's Who in America" and "American Men of Science". Address: Crocker Building, San Francisco.

Class of 1904 (continued).

THELEN, R. United States Forestry Service, Wisconsin.

TUOHY, H. 275 Park View Terrace, Oakland, California.

WAYNE, H.T. President, Truck and Tire Service, 329 North Atrus Avenue, Los Angeles.

WHEELOCK, R.P., mining engineer. Address: 92 North McCambley Street, Battle Creek, Michigan.

YOUNG, G.J. Associate editor, Mining Journal, New York City.

YOUNG, G.S., mining engineer. Address: 829 Wawona Avenue, Oakland, California.

Class of 1905.

BANNISTER, E.A. In the packing and shipping business. Address: Route 4, Yakima, Washington.

BEVAN, J.L., consulting hydraulic engineer. Address: 7 Day Street, New York City.

BOOTH, F.J., auto dealer. Address: 1305 Vine Street, Paso Robles, California.

BRUNSKY, C.E., Jr., engineer. Address: Valley Springs, Calaveras County, California.

CAHILL, W.E. Superintendent, Alaska Treadwell Gold Mining Company, Treadwell, Alaska.

DODGE, E.V. 609 West Walnut Street, Stockton, California.

DRURY, L.M., high school teacher. Address: Route 4, Box 75-L. Stockton, California.

DYKE, L.H. Federal Building, Oakland, California. Honorable mention for distinguished scholarship.

GILLELEN, F., civil engineer. Address: Hollingsworth Building,

Class of 1905 (continued).

Los Angeles.

HILL, W.N., c/o Warner Construction Company, 173 West Madison Street, Chicago.

KONG, S.T. 25 San Kiao, Hankow, China.

McCRANEY, O., mining engineer. President, West Mines Corporation, Post Office Box 831, Nevada City, California.

McCray, I.D.

McGAVIN, J.D. 2701 Broderick Street, San Francisco, California.

MERWIN, R.C., bank cashier. Amador City, California.

MILTON, M.C., mining engineer. Address: 424 Monte Vista Avenue, Oakland, California.

MISHLER, R.T. Manager, El Tigre Mine, Sonora, Mexico. Honorable mention for distinguished scholarship.

MULLEN, J.S. 4112 West 66th Street, Los Angeles.

MULLER, Henry. Concord, California.

SMITH, J.G. 229 North K. Street, Dinuba, California.

SOLOMAN, L. With the Standard Oil Company. Address: 225 Bush Street, San Francisco.

STANLEY, E.J. 521 South Sycamore Street, Santa Ana, California.

STINES, N.C. Post Office Box 17, Los Gatos, California.

VICKERY, F.P., B.S., geologist. Born in San Rafael, California, April 20, 1880. A.M., Stanford, 1919; Ph.D., 1924. Secretary, sub-committee on geology, committee on seismology, Carnegie Institute, 1918-19; research, Stanford geological survey, 1919; paleontologist, 1922; assistant director, 1923. He was instructor in geology, University of California, Los Angeles,

Class of 1905 (continued)

1921-22; assistant professor, 1922-26; geologist, Miley Oil Company, 1926-29; West Gulf Oil Company, 1929-31; honorable curator, Museum of History, Science, and Art, Los Angeles. Specialty: structural geology; physiography. Member, Pacific Coast Natural Research Council; Le Conte Club. He is listed in "American Men of Science". Address: 1414-40th Street, Sacramento, California.

ROSS, Herbert William, B.S., metallurgical engineer. Born in Oakland, California, July 30, 1880. He was engaged in metallurgical engineering, 1898-1907; assistant superintendent, Cerro de Pasco Smelter until 1911; general superintendent, Backus and Johnston Smelter, 1911-16; resident manager, Compania Minera Backus and Johnston del Peru, 1916-17; director of Marbelite Corporation of America, Latin American Milling Company, and Midway Beach Company. He is now retired. He is listed in "Who's Who in California". Address: 713 North Crescent Drive, Beverly Hills, California.

STUMPF, U.C., orchardist. Banning, California.

WILCOX, J.A. 1203-22nd Avenue, Longview, Washington.

Class of 1906.

ADAMS, W.S. 76 Oakmont, Oakland, California.

ARNOLD, C.E.L., mining engineer. Anaconda Copper Company. Address: Room 1825, 25 Broadway, New York City.

BACKUS, G.S., engineer. Oliver Filter Company. Address: 355 Adams Street, Oakland, California.

BAILEY, L.N. (deceased).

Class of 1906 (continued).

BAKER, F.N. Assistant cashier, Bank of America. Address: 1903 Pole Street, Ventura, California.

BARKER, E.E., mining engineer. Murubira Mines, North Dola, North Rhodesia, South Africa, also Nevada City, California.

BROWN, S.C., Jr., mining engineer. Address: 235 Mountain Avenue, Piedmont, California. Received the University Medal as the most distinguished graduate of the year.

BURGESS, John Albert, mining engineer and geologist. Born in St. John, New Brunswick, Canada. Chief engineer, Tonopah Mining Company of Nevada, 1906-1911; superintendent, Nevada Wonder Mining Company, 1911-16; general manager, United Eastern Mining Company, Oatman, Arizona, 1916-20; consulting engineer and geologist, San Francisco, 1920-33; general superintendent, United States Smelting Exploration, S.A. (a subsidiary of the United States Smelting and Refining Company); consulting geologist, Cia de Real del Monte y Pachuca, Mexico, 1926-27; consulting engineer for Ventures, Ltd., Toronto, Canada, 1928, and for the Mayflower Associates, New York, 1929; manager of mines, Carson Hill Gold Mining Corporation, Calaveras County, California since 1933. Mine examinations in Alaska, Canada, United States, Mexico, and South America. Specialty: mining geology for the purpose of finding ore (he has been very successful in finding ore bodies)-Mr. Burgess states that, in his opinion, college work is of importance to the engineer in the following respects: "1. Methods and habits of study. Training in the sciences, mathematics, physics, chemistry, etc. 2. Education in one's

specialty, as in geology, or in any study that is of particular interest to the student. 3. General information received regarding technical processes. 4. Acquaintances and friends made." Mr. Burgess regards college work as an essential preparation for an engineer, and the first two years of it as the most important ones as they provide the necessary groundwork. He feels that the student can, if necessary, acquire in practical work of what college would give him in the second two years. "College", says Mr. Burgess, "does not make an engineer but it does prepare him to be a good apprentice. He really learns his business at his work after college. His success depends largely on his willingness to continue study, on his personality, and on a reasonable amount of good fortune (or luck)". Member, American Institute of Mining and Metallurgical Engineers; Mining and Metallurgical Society of America; Sigma Xi. Club: Commonwealth. He is listed in "Who's Who in America". Address: Melones, Calaveras County, California.

CARPENTER, E.E. (deceased).

COLLIER, A.H. Assistant city engineer, City of Oakland, Address: 20 Jerome Avenue, Piedmont, California.

DeARMOND, C.F., civil and mining engineer. Court House, Elko, Nevada.

DUNN, R.I. Residont engineer, Skagot River Power Company, Seattle, Washington. Address: 1325 Saltair, Sawtelle, Washington.

EBRIGHT, H.R., consulting mining engineer. Russ Building, San Francisco.

ESTERLEY, W.B.

FARRIS, W.

GEARY, J.W. 2304 Divisadero Street, San Francisco.

GRIFFITH, W.V. (deceased), mining engineer. His address was 441

Class of 1906 (continued).

Cloverleaf, Monrovia, California.

HABER, H. 104 El Cerrito Avenue, San Mateo, California.

HEISE, A.R. Refinery superintendent, Union Oil Company of California.

HENRY, W.W., Jr. Engaged in investment business. Address: 1011 Warfield Avenue, Oakland, California.

HUBER, P., mining engineer. 430 Broad Avenue, San Leandro, California.

IRVIN, D.F. 1862 Arch Street, Berkeley, California.

JORDAN, J.J. Mill Superintendent, Dome Mines Ltd., South Porcupine, Ontario, Canada.

JOUBERT, F.J. Operates hydraulic gold mine, Comptonville, California.

LARSEN, Esper S., Jr., B.S. (Ph.D., 1918), geologist. Born in Astoria, Oregon, March 14, 1879. He was assistant petrographer, Geophysical Laboratory, 1907-09; instructor in geology and mineralogy, University of California, 1906-07; joined the United States Geological Survey in 1909; was assistant geologist until 1914; geologist, 1914-18; and in charge of section of petrology, 1918-23. He has been acting professor, University of California, 1915-16, and professor of petrography at Harvard since 1923. Member of Geological Society of America; Mineralogical Society of America (president, 1928); Mineralogical Society of Great Britain; and the American Academy of Arts and Sciences. His time has been devoted chiefly to research work in geology and petrology, principally the accurate microscopic determination of minerals and to studies concerning the geology of the San Juan Mountains of Southwestern Colorado, the tungsten deposits of the United States, the Triassic batholith of Southern

Class of 1906 (continued).

California, and the igneous rocks of the Highwood Mountains of Montana. He is listed in "Who's Who in America" and "American Men of Science". Address: Harvard University, Cambridge, Massachusetts.

LINFORTH, F.A. 1140 West PlatmmStreet, Butte, Montana.

LOWE, C.S., mining engineer. 701 Grant Avenue, San Francisco.

MACE, C.H. 2763 Blake Street, Denver, Colorado.

MAC FARLAND, W.H.S. General manager, Yukon Consolidated Gold Corporation, Ltd., Fairbanks Exploration Company, Dawson, Y.T., Canada.

NEWCOMB, R.P.O. (deceased), mining engineer.

OLIVER, T.C. Vice president and general manager, Chemical Construction Corporation; director of laboratories. 60th floor, 30 Rockfeller Plaza, New York City.

OSGOOD, Charles G., mining engineer. Address: 2339 Oregon Street, Berkeley, California.

POND, H.S., engineer. United States Engineer's Office, 401 Custom House, San Francisco.

RHODES, F.N. Works manager, Wilson's Portland Cement, Company, Ronaki, Remuera, Aukland, New Zealand.

STOVER, J.F. 2726 N.E. Alameda Drive, Portland, Oregon.

WROTH, J.S., mining engineer. International Mining Company, 29 Broadway, New York City.

Class of 1907.

ADAMS, A.H. City engineer, Long Beach, California. Office: Room 502, City Hall, Long Beach, California.

Class of 1907 (continued)

ALLEN, H.S. Manager, Kern County Land Corporation, 2421 Sunset Avenue, Bakersfield, California.

BARKER, F.T. 189 Warwick Street, Oakland, California.

BELKNAP, J. (retired), mining engineer. Lakeport, California.

BLATCHLEY, W.H. 627 Jackson Avenue, Joplin, Missouri.

BLOCK, W.J. 429-12th Avenue, San Francisco.

BUSH, F.W., Jr. Pruneville Avenue, Napa, California.

CHUBB, F.H., mining engineer. Oil refiner, Standard Oil Company, San Francisco. Address: 2637 Piedmont Avenue, Berkeley, California.

COLE, A.G. Englemine, California.

CRAIG, C.V., mining engineer. Address: 930 Trans-America Building, Los Angeles.

DARLING, Henry W., B.S., mining engineer. After leaving college, he worked as millman for the Montana Tonopah Company for three months; assayer and millman, Silver Peak-Valcalde Company, Blair, Nevada, to February 15, 1908; general mill foreman, Pittsburg Silver Peak Company, Blair, Nevada, to November, 1910; mill erection mechanic, Ray Consolidated Copper Company, Hayden, Arizona, to April 1911; erection boss, then general mill foreman, Dome Mines, Ltd., Porcupine, Ontario, to October, 1913; shift boss, McIntyre Porcupine Mines, Ltd., to February, 1914; surveyor, mine engineer, geologist and assistant manager, Porcupine Crown Mines Ltd., to January, 1917; manager, Dome Lake Mining Company. He acted as consultant for Inspiration Gold Mines; as examining engineer for Graselli Chemical Company to April, 1917;

as examining engineer for Crown Reserve Mining Company of Montreal, Canada, to January, 1920. He was manager, Reward Gold Mines, Ltd., Inyo County, California; examining field engineer, Crown Reserve Mining Company to February 1921; independent consulting and examining engineer with office in Timmins, Ontario, to December, 1928; mine superintendent, Aakerite Gold Mining, Ltd., South Porcupine, Ontario, to May, 1929; field engineer, Goldfields, American Development Company, Ltd., of New York - covering Canada for this company to April, 1930; mechanical superintendent, then chief engineer, then assistant general manager, New Goldfields of Venezuela, Ltd., El Callao, Venezuela, South America, to May, 1932; independent consultant and examining engineer with offices in Timmins, Ontario, Canada, to present date. Mr. Darling has gained a great deal of experience while travelling (by canoe, by dog-sled, or with the packsack) and prospecting in the Canadian North and while operating various plants in places far remote from the sources of supply; he narrowly escaped several disasters. Address: c/o Porcupine Crown Mines, Timmins, Ontario, Canada.

DAVELER, E.V., mining engineer, corporation executive. Address: Box 1708, Butte, Montana.

ELLIOT, R.H., mining engineer. Manager, Valdos Dredging Company. Address: 1 Eucalyptus Road, Berkeley, California.

ESTEP, R.K., engineer. J.L. Borden Gold Dredge Engineering Company, 417 Montogomery Street, San Francisco.

FRIEMDLY, Oscar Nathan, B.S., mining engineer. Born in Corvallis, Oregon, August 24, 1884. Mining engineer and geologist, Daly Judge Mining Company, 1909-13; engineer in charge of Snake Creek

Mining and Tunnel Company, 1909-18; general superintendent, Daly Judge Mining Company, 1913-17, the Judge Mining and Smelting Company, 1917-22, and the Daly West Mining Company, 1918-22; general manager, Park City Mining and Smelting Company, 1922-25; chief engineer, assistant general manager, and treasurer, Park Utah Consolidated Mines Company, 1925-34. Since 1935 consulting mining engineer, vice president and general manager of the Park Consolidated Mines Company; also president of the Park City Utah Mines Company, the Ontario Silver Mining Company, the Daly Mining Company, and the San Diego Mining Company; director, Naildrive Mining Company and Utah Ore Sampling Company; president of State Bank of Park City. Member of American Institute of Mining and Metallurgical Engineers and American Mining Congress. Clubs: Alta, Fort Douglas Golf (Salt Lake City). He is listed in "Who's Who in America". Office: Continental Bank Building, Salt Lake City, Utah. Home address: 125 South 13th East Street, Salt Lake, Utah.

FRY, C.H. Superintendent, Safety Industrial Accident Commission. Address: 2714 Garber Street, Berkeley, California.

GORDON, C., consulting geologist. 239-38th Avenue, San Francisco.

HALEY, C.F., consulting mining engineer. 619 Crocker Building, San Francisco.

HARGRAVE, C.S. Principal, Folsom Union High School, Hayward, California.

HARTLEY, J.A. Vice President, Braum Laboratory Supply, South Irving Boulevard, Los Angeles.

HAURY, Peter Samuel, construction engineer and geologist. Yeiju

Class of 1907 (continued)

Mines, Ltd., Ansori Shin Shi, Heihoku, Chosen.

HERRICK, H.N., engineer. Standard Oil Company, 1300 Standard Oil Building, San Francisco.

HUGHES, J.E., attorney.

HUNT, P.H., B.S. After graduation he spent a year and a half in Alaska, then worked underground in the Coeur d' Alene and Butte mines. Next he went to Mexico where he worked in various capacities for different companies for five years. In Mexico he saw much of the early growth of the revolution and suffered considerably from the depredations of the so-called reformers and revolutionists. Mr. Hunt returned from Mexico in December, 1913. He worked a short time in Shasta County, California, and Ely, Nevada; then he went to Park City, Utah, where he has been connected with the same concern since 1914. His present position is mine manager with the Park Utah Consolidated Mines Company, Park City, Utah. Mr. Hunt writes that he has found graduates of California quite successful in mining. They have had a good grounding in fundamentals and, in general, seem to have a faculty for applying their knowledge and experience in a practical manner. In recent years Mr. Hunt has served as Commissioner, Representative, and State Senator, and on different state committees. Address: Park City, Utah.

KEYES, C.E., Jr. Heald's College, Oakland, California.

LASATER, Fred. Farm Star Route, Prescott, Arizona.

LINDSAY, Lionel. Hambrook House, Chichester, England.

LOGAN, W.W., mining engineer. 960-54th Street, Oakland, California.

LUNDY, W.T. President and general manager, Freeport Sulphur Company,

Class of 1907 (continued)

1804 American Bank Building, New Orleans.

MASSIE, J.V.. Route 2, Box 314, Vicksburg, Mississippi.

MATHIS, E.H., petroleum engineer. Standard Oil Company. Address: 259 Monterey Road, Oakland, California.

MILLER, K.C. 2439 N.E. 21st Avenue, Portland, Oregon.

PARKER, J.A. La Babylonia, Choatalos, Nicaragua, South America.

ST. JOHN, P. 3079 Patricia Avenue, Los Angeles.

SANCHEZ, L.A. 6032 Harwood Avenue, Oakland, California.

SCHWEITZER, J., mining engineer. Address: Alexander Hamilton Hotel, San Francisco.

SHERMAN, A.F. 1031 Walker Avenue, Oakland, California.

STANTON, H.W. C.O. Stanton and Company, 540 S. Coronado Street, Los Angeles.

STUART, C.E., B.S. Underground work, surveying, assaying, milling, refining, and work in the cyanide plant for the Tonopah Mining Company and the Montana Tonopah Mining Company, Tonopah, Nevada, 1907-10, and for the American Smelting and Refining Company, Mexico, 1910-17 (assistant to traveling engineer, 1910); engineer, Angangueo Unit, Angangueo, Michoacan, Mexico, 1910-15; traveling engineer (mine examination), for the same company,1916; superintendent, Bonanza Unit, Zacatecas, Mexico, 1916-17; captain, Company C, 319th Engineers, 8th. Division, United States Army, 1917-19; engineer on mine examinations; American Smelting and Refining Company, Tuscon, Arizona, 1919-21. Discontinued mining in 1921 and since that time has been president of the Patton Wooden Ware Company. Address: 2919 Airport Way, Seattle, Washington.

Class of 1907 (continued)

SULLIVAN, C., mining engineer. Address: 747 Rosemount Road, Oakland, California.

TRIPP, C.J., mining engineer. He was engineer and refiner for the Pittsburg Silver Peak Mining Company at Blair, Nevada, 1906-10; superintendent, Dahlonega Gold Mining Company, 1910-11; engineer in power division, Los Angeles Aqueduct, 1911; orange grower and rancher in Southern California, 1912. He became city treasurer, Redlands, California, 1918. Member, Chi Psi. He is listed in "Who's Who in California". Address: City Hall, Redlands, California.

ZAPH, N.M. Manager, Synthetic Iron Color Company. Address: Craigmont Avenue, Berkeley, California.

Class of 1908.

ANDROSS, A.K. Route 1, Box 355, Yuba City, California.

BATES, B.R., mining engineer. East Africa Gold Fields, Ltd., East Africa. Honorable mention for distinguished scholarship. Office: Bradbury Building, Los Angeles.

BENSON, J.P. Technical assistant (research department), Standard Oil Company. Address: 1019 Oxford Street, Berkeley, California.

BOALICH, E.S., mining engineer (private practice). Address: Box 227, Chico, California.

CHAKYVARTI, N.C. Ghoramara Rayshahi, Bengal, India.

CLARK, F.E., mining engineer and mine owner. Business address: Box 10, Nevada City, California; residence: 5380 Thomas Street, Oakland, California.

COHN, R.E. Casilla 6 D, American Smelting Company, Santiago, Chile, South America.

CORBETT, J.C., science teacher. 1833 Lexington Street, Stockton, California.

FRIEDLANDER, O.A.

HAWES, C.E. Manager, Southern California Edison Company, 1437-4th Street, Santa Monica, California.

HOLTER, M.E. (deceased).

INGRAM, S.H., engineer. With the Smith Emery Company, Chemists and Engineers. Address: 528 California Terrace, Pasadena, California.

JOHNSON, C.E. 1298 Oxford Street, Berkeley, California.

KLAUS, H.C., mining engineer. Address: c/o Blue Bell Mines, Mayer, Arizona.

KRENZ, W.C. (deceased). Honorable mention for distinguished scholarship.

MacNICHOL, A.W. Proprietor, MacNichol and Company, Pier 5, San Francisco.

MAYER, H.H., mining engineer. Address: 1499 Cowper Street, Palo Alto, California. Home: 809 Harrison Avenue, Helena, Montana.

O'CONNELL J.J. (deceased), hydraulic engineer. Died in Rio De Janiero in 1929.

PACK, Robert Wallace, B.S. Born in Berkeley, California, June 15, 1885. Fellowship, University of California, 1909. He was assistant mineralogist and petrographer, University of California, 1908-09; fellow, 1909-10; assistant and associate geologist, 1910-13, paleontologist, 1914-15, geologist, 1916-17, United States Geological Survey; with the Sun Oil Company, 1917-19, chief geologist and general manager, Gulf Coast Division, 1920;

since 1920 vice president and general manager of the Sun Pipe Line Company. Member, Geological Society; Paleontological Society; Mining and Metallurgical Engineers; Association of Petroleum Geologists. Specialized in geology of petroleum; contributions on California stratigraphy and tertiary paleontology; petroleum deposits of Central and South America, Texas, Louisiana, and California. He is listed in "American Men of Science". Address: Sun Oil Company; Beaumont, Texas.

PINKHAM, W.H. 1063 South Mansfield Avenue, Los Angeles.

REEVES, T.V., consulting mining and geological engineer. Address: 1905 Hopkins Street, Berkeley, California.

RIGBY, B., sales engineer. In the field of mechanical refrigeration. Address: 726 The Alameda, Berkeley, California.

ROBERTSON, T. Edgar. Fillmore, California.

SISSON, G.H.

SNELL, R.A.

STENGER, E.L. 699 Ensenada Avenue, Berkeley, California.

SUBLETTE, L.B. Gilman Springs, San Jacinto, California.

TYSSOWSKI, John, B.S. He has been with various mining and quarry companies and was on the editorial staff of the Engineering and Mining Journal until 1913; assistant general manager of the Childs Company; war service; executive with C.H. Post interests; vice president and American manager, American Foreign Trade Corporation; treasurer and general manager, Bennett Day Importing Company, 1913-28. At present he is president of the Copper Deoxidation Corporation, New York;

Class of 1908 (continued).

vice president of Coalescence Products Company, New York; director, Woodward and Lothrop, Washington, D.C.; and a colonel, Reserve Corps, United States Army. Chief activities since 1928: development of metallurgical processes for production of copper of high purity; oxygen free copper by coalescence of brittle cathodes. Mr. Tyssowski writes that he attributes such success as he has attained largely to the training he received at the University of California, which (1) stimulates a keen interest in new problems, (2) provides scientific analytical basis for attacking the problems encountered, (3) furnishes enough basic scientific knowledge to understand various technical subjects and seek further information and an ability to study and digest such available data. Member, Phi Delta Theta, Golden Bear, Tau Beta Phi. Office: 366 Madison Avenue, New York City. Home address: Dobbs Ferry, New York.

WALLENBERG, H.L.: Honorable mention for distinguished scholarship.

WHITE, C.B., mining engineer. Coal Creek Dredging Company, Nome, Alaska. Honorable mention for distinguished scholarship.

WHITE, G.H., geologist. With the Shell Oil Company. Address: 1428 Thompson Boulevard, Ventura, California.

Class of 1909.

ATKINS, J.W., civil and mining engineer. Address: 829 Pekin Street, Lincoln, Illinois.

BOYD, P.

Class of 1909 (continued).

BOYDSTON, C.E., geologist. Pacific and Associated Oil Company. Home address: 2640 Regent Street, Berkeley, California.

BRAY, E.V. (deceased).

BRIGNOLE, A.S. Mining, Sutter Creek, California.

COCHRAN, N. (deceased).

CRAIG, J.M. 3530 Ridge Road, Berkeley, California.

DAY, D.W. Manager, C.A. Worth and Company, 696-12th Avenue, Oakland, California.

DOUGLAS, C.B.E., B.S. Immediately after graduation he got a temporary job on a secret survey for the T and G Railway, out of Tonopah, Nevada, then became a mill shift boss for Minas del Tajo in Rosario, Sinaloa, Mexico. In November, 1910, he went to Bolanos, Jalisco, Mexico, for the same concern, in charge of road location, construction and other jobs incidental to the preliminary work of re-opening an old camp; work was interrupted and, in 1913, finally given up because of revolutionary activities. Mr. Douglas then went to work for Cinco Minas, first on road work, then mine surveying, assaying, etc.; he was on the mine staff of the Amparo Mining Company, also in Jalisco, until he left to join the British Army in January, 1915. After the war he returned to the Amparo Mining Company, but left early in 1920 to start mine examinations, since then his principal work, in Mexico, Nevada, Arizona, and Central America. For the past nine years Mr. Douglas has been with the United Smelting Exploration, S.A. and the Cia de Real del Monte y Pachuca, subsidiaries of the

Class of 1909 (continued).

United States Smelting, Refining and Mining Company, Boston, Mr. Douglas gives credit to the instruction received in college for having given him the necessary foundation upon which to build. He makes special reference to a series of lectures, in his senior year, by T.A. Rickard on Mine Examination and Valuation. Address: United States Smelting Exploration, S.A. Apartado No. 3, Pachuca, Hidalgo, Mexico.

EGGERS, J.H., Jr., geologist. Address: 2036 San Jose Avenue, Alameda, California.

FELTON, H.W. Mazatlan, Sinaloa, Mexico.

FIES, C.D. Owner of Super Service Station. Address: 321 Mill Street, Rosenberg, Oregon.

FISHER, H. 3231 East Broadway, Long Beach, California. Honorable mention, University of California.

GESTER, George Clark, B.S. Born in Buffalo, New York, June 16, 1884. Assistant instructor, mineralogy and geology, University of California, 1908-1909. With the geological and oil department of the Southern Pacific (geological examination of oil and mining districts in California and other Western states, and petroleum engineering work), 1909-14. Geologist for the Standard Oil Company of New York, in charge of expedition to Peru, South America, geological exploration in the North Coastal Terrain of Peru, also reconnaissance trip across Andes on to headwaters of Amazon, 1914-16; chief assistant was S.H. Gester, graduate, University of California, Class of 1913. Chief geologist with the Standard Oil Company of California,

Class of 1909 (continued)

1917 to present; in charge of exploration and geological work in the United States and foreign countries; at present time exploration geological work is being conducted in Mexico, Venezuela, Columbia, Dutch East Indies, Saudi Arabia and Bahrein Island, and, in the United States, in the Pacific Coast States, Rocky Mountain States, Texas and Louisiana. Member, American Petroleum Institute (chairman of sub-committees on Gas-Oil Supply and Conservation); American Association of Petroleum Geologists (vice president, 1921; president, 1927); American Institute of Mining and Metallurgical Engineers; California Academy of Science; Sigma Xi; Theta Tau. He is listed in "Who's Who in America", "Who's Who in California", and "American Men of Science". Address: Standard Oil Company of California, 225 Bush Street, San Francisco.

HILLYARD, W.K., B.S. After leaving the University of California, he followed the mining business for two years. Since then he has been working exclusively on irrigation and civil engineering projects. Address: Santa Ana, California.

HUGUENIN, E. 611 Orpheum Building, Los Angeles.

JAHN, J.R. 406 Charleston Building, San Francisco. Honorable mention and fellow, University of California.

Class of 1909 (continued).

JORDAN, H.S., B.S. He was connected with several concerns as chemist, assayer, surveying, sampling, etc., until 1917. Since that time he has been engineer for Master Filters, Inc., Research and Patent Development. Address: 713 East 3rd. Street, Los Angeles.

McLAUGHLIN, R.H.

MELLERSH, T.C. 68 Post Street, San Francisco.

OSTRANDER, J.E. (deceased).

RICHARDSON, M.R. Manager, Richardson properties, 2000 22nd Street, Sacramento, California.

SCHAUFELE, J.J. Signal Oil and Gas Company of California. Address: 2301 Blanding Avenue, Alameda, California.

SCHREIBER, H.W., maintenance engineer. Address: 2063 Harrington, Oakland, California.

SEARLES, F., Jr. Vice president, Newmont Mining Corporation, 14 Wall Street, New York City. Honorable mention, University of California.

WAGY, E.W., petroleum engineer. With the Standard Oil Company, San Francisco. Home address: 1964 El Dorado Avenue, Berkeley, California.

WATERMAN, D., consulting mining engineer. General manager, Giganto Mining Company, Jucoro Salvador R.G.A., Cuba.

WOOD, C.E. Special placer rock work. Address: 564 Broadmoor Boulevard, San Leandro, California.

Class of 1910.

ALLEN, R.F., mining and metallurgical engineer. Address: Michel-torena Street, Los Angeles.

Class of 1910 (continued).

ANDERSON, W.

BALL, A.L.

BELKNAP, R.R.

BURKE, H.A. Assistant mill superintendent, Fresnillo Company, Mexico.

DARKE, R.E., geologist. Standard Oil Company, Box 1200, Bakersfield, California.

DAVIS, E.F. Vice president, Standard Oil Company, 417 East Randolph Street, Glendale, California.

DOD, H. Charlton, B.S. Honorable mention, University of California. He went to the Midway Oilfields after graduation and worked with the Esperanza Consolidated Oil Company, starting as tool-dresser and finishing in 1911 as assistant engineer and geologist. He then went to London with a good option but, failing to sell it, was employed as assistant in an investigation of the Imbert electrothermic zinc process at Kattowitz, Silesia. Mr. Dod returned to Australia in 1912 and joined the Amalgamated Zinc Company at Broken Hill, acting as shift metallurgist until July, 1914. His next position was superintendent of the South Australia Oil Wells Company where he remained until 1931, seeking for oil in South Australia, Victoria, and Queensland. For the next two years Mr. Dod tried farming in Victoria; then, in June 1934, he was employed by the Western Mining Corporation, Western Australia, where he remained until May, 1935. He surveyed and bored a big Alumite deposit near Westonia, then took a party to East Kimberley region, South of Wyndham, and near Halls Creek, where he sought and bored alluvial deposits for gold dredging. Since May, 1935,

he has been lecturer in chemistry, assaying, and metallurgy at the Kalgoorlie School of Mines. Mr. Dod writes that his instruction at Berkeley has been of great value to him in gold dredging and gold recovery in general. This also applies to his present position as he uses his old University of California notes whenever possible. As the chief pioneer in the search for oil in Australia, Mr. Dod used California methods.

He writes: "The work was always done in the face of lack of capital, poor geological information, difficulty in obtaining proper apparatus, and other hinderances, but we 'made hole'. The deepest I drilled was at Robe, South Africa, to 4500 feet with a light cable tool plant." Mr. Dod had many interesting experiences up in the Kimberleys, a wild country, and he reports that the mines are busy and many thousand men go to work daily. The largest mine, the Lake View and Star, treats over 50,000 tons per month, averaging about 7 dst. per ton. Member, Tau Beta Pi and Sigma Xi. Address: School of Mines, Kalgoorlie, West Australia.

GARRS, W.J. General mill superintendent, Nevada Consolidated Copper Company. Honorable mention, University of California. Address: 658 Shotwell Street, San Francisco.

GERSON, G.D. 2209 N.W. Everett Street, Portland, Oregon.

GRIFFEN, C.H., Jr. Pasatiempo Country Club, Santa Cruz, California.

HAFFEY, Calvin W. B.S. Joseph Bonneheim Memorial Scholarship. After leaving the University he was continuously employed by the American Smelting and Refining Company at the Selby Plant,

Class of 1910 (continued).

Selby, California. During the course of his employment he became chief metallurgist and mechanical superintendent. Mr. Haffey left the smelting company in 1930 to enter private business. He has done considerable original work in the recovery of both antimony and tin from smelter by-products. Patents were issued for this work. Address: Colfax, California.

HASKELL, R.M. Lake Linden, Michigan.

HUBBARD, L.J. 1517 13th Street, Apartment 6, Sacramento, California.

KETTENBACH, O., Retired mining superintendent, Tucson, Arizona.

KING, S.L., geologist and consulting engineer. Address: 937 Bronsen Avenue, Los Angeles.

KIRK, M.W. Manager, Bunting Iron Works, 2 Norwood Avenue, Berkeley, California.

LEPPER, E. 400 Lincoln Street, Oroville, California.

MONTIJO, Fernando H., engineer. Cananea Consolidated Copper Company, Cananea, Sonora, Mexico.

RODEGERDTS, C.A. 431 Avilia Street, San Francisco.

SAMPSON, J.A.

SMITH, Eugene Ferry. R.F.D. 3, Box 100, Bethesda, Maryland.

SOLOMAN, R.W. Superintendent, J.W. Jameson Corporation, Los Angeles.

VAN ISSCHOT, C.A. Domingo J. Navarro, 5 Las Palmas, Canary Islands.

Class of 1911.

BAGLEY, E.M. Mill superintendent, Cortez Benequet Mining Company; mill superintendent, Cortez Silver Mine. Address: Baguio Luzon, Philippine Islands (via Beowawe).

Class of 1911 (continued).

BASLER, M.A., fuel and feed dealer. Box 85, Sacramento, California.

BELL, B.L.C. (deceased).

BROWNLEE, C.G. Refinery manager, Union Oil Company. Address: 1005 Dodson Street, San Pedro, California.

CARRICK, W.H. Pocatello, Idaho.

CHEN, E.T.H. (deceased). He was employed by the Yunan Tin Trading Company, Yunan, China.

COLLINS, G.M., engineer. E.E. Black, Ltd., Post Office Box 3466, Honolulu, T.H. Honorable mention, University of California.

DARCH, W.F. (deceased). Honorable mention, University of California.

De BERRY, W.E. (deceased). Honorable mention, University of California.

De SMITH, G., Jr.

EDWARDS, V.P.

FOX, Carl Henry. 616 The Alameda, Berkeley, California.

GASSAWAY, L.D., mining engineer. Address: 2641 Stuart Street, Berkeley, California.

GAYLORD, E.G., petroleum engineer. Chief petroleum engineer, Standard Oil Company, 225 Bush Street, San Francisco. Honorable mention, University of California.

HARPHAM, H.H. Superintendent, Tubbs Cordage Company, 22nd and Iowa Streets, San Francisco.

HART, S.A., sanitary engineer. Address: 2418 Cedar Street, Berkeley, California.

HERNDAL, A.J. (deceased).

HERON, C.M. 345 South Serrano Avenue, Los Angeles.

HOFER, T.M., engineer. With the Standard Oil Company. Address: 225 Bush Street, San Francisco.

Class of 1911 (continued).

JACKSON, R.P. c/o United States Fidelity Guaranty Company, San Francisco.

JOUBERT, L.J., mining engineer. Assistant manager, Bulolo Gold Dredging, Ltd., New Guinea.

LATHROP, L.J., mining engineer. Address: c/o C.A. Lathrop, 841 Oxford Street, Berkeley, California.

MARTIN, B. (deceased), geologist. Waukena, California.

MOODY, W.L. (deceased), geologist. He was with the Southern Pacific Company. Honorable mention, University of California.

MORSE, H.E., mining engineer. Address: 954 Howard Street, San Francisco.

NELSON, W.I. Superintendent, Engles Copper Company, Crescent Mills, Plumas County, California.

NORTH, A.C. 2833 Ashby Avenue, Berkeley, California.

PHELPS, R.W., consulting engineer. Address: 426 Madrona Street, Brea, California.

ROSENSHINE, L.J., mining engineer. Address: Casila 1825, Lima, Peru.

SAWYER, W.B., Jr. Sales manager, Columbia Steel Company, 1415 Morton Street, Alameda, California.

STAPLES, C.M. Chief clerk, Phelps Dodge Corporation, Morence Branch, Arizona. Honorable mention, University of California.

STEMNLE, J.W., chemist. Union Oil Company, Crockett, California.

SMITH, W.A. (deceased).

THIEL, H.G. Honorable mention, University of California.

THOMPSON, H.G.

TOBIN, de la L.

UREN, L.C., B.S. Born at Grass Valley, September 1, 1888. Honorable

mention, University of California. He was with Eagle-Shawmut Mining Company, 1904-12; assistant instructor in mining, University of California, 1912-15; instructor, 1915-17; assistant professor of petroleum engineering, 1917-19; and associate professor, 1919-25. Engineer, United States Fuel Administration (World War); consulting petroleum engineer, United States Bureau of Mines and various oil companies; also captain, Chemical Warfare Service, A.E.F., 1918-19; petroleum engineer, research consultant, since 1924. Member of American Institute of Mining and Metallurgical Engineers: American Association of Petroleum Geologists; American Petroleum Institute; Sigma Xi., Tau Beta; Pi Theta Tau. He is listed in "Who's Who in America" and "American Men of Science". Clubs, Faculty and Kiwanis. Address: 807 The Alameda, Berkeley, California.

VAIL, R.R. General manager, Viakfontein Gold Mining Company, Springs Transvaal, South Africa.

WALDORF, C.O., mining engineer. Address: 1014 Pacific National Bank Building, Los Angeles.

WHITMAN, Alfred R., B.S. (M.S. 1913; Ph.D., 1921). Born in Oakland, California, April 11, 1882. He was assistant geologist and mineralogist at the University of California, 1912-13; mining geologist, 1914; instructor, S.A.T.C., Columbia, 1918-19; instructor in geology, University of California at Los Angeles, 1922-23; assistant professor, 1923-29. He has been associate professor since 1929. Specialty: ore genesis, geochemistry, petrology. Associate of Arts. Member, Mining and Metallurgical Engineers; Mineralogical Society;

Class of 1911 (continued).

Seismological Society; Canadian Institute of Mining and Metallurgy; fellow, Geological Society. He is listed in "American Men of Science". Address: 824 Melrose Hill, Los Angeles.

WILCOX, A.D., B.S. Went to work immediately after graduation, in the engineering department of the Goldfield Consolidated Mines at Goldfield, Nevada, and was in charge of the underground surveying and mapping from 1911 to 1914 (The Goldfield Consolidated Mining Company at that time was the World's largest gold producer and the mines were staffed mostly by California men. The mines were worked out about 1920 and are now shut down); left Nevada in 1914 due to a serious accident and since then has followed other work in Salem, Oregon. Address: 840 North Sumner Street, Salem, Oregon.

WOLFSOHN, F. 209 Post Street, San Francisco.

Class of 1912.

BARNETT, E.D. Cowell Portland Cement Company, Cowell, California.

BASHAM, J.M., B.S. Honorable mention, University of California. With the exception of one year lieutenant in the United States Army, he has been in constant employment of the Mountain Copper Company in various capacities from surveyor's helper to general superintendent. Address: Shingle Springs, El Dorado County, California.

BENSACCA, W.A., B.S. He was cyanide operator, Goldfield Consolidated, Goldfield, Nevada, 1912-13; mill shift boss, Buckhorn Mines Company, Buckhorn, Nevada, 1913-15; mill operator and

testing engineer, Timber Butte Milling Company, Butte, Montana, 1915-17; flotation forman and testing engineer, Interstate Calahan Mining Company, Interstate, Idaho, 1917-18; private and lieutenant, Engineers, United States Army, 1918-19; mill operator, Shattuck Arizona Mining Company, Bisbee, Arizona, 1919-20; mill shift boss, The Mexican Corporation, Teziutlan, Puebla, Mexico, 1920; oil geologist, The Texas Company, Tampico, Tamps, Mexico, 1920-21; mill foreman, La Fe Mining Company, Guadalupe, Zacatecas, Mexico, 1922-24; mill superintendent, International Ore and Smelting Company, Taxco, Gro., Mexico, 1924-25; mill superintendent, Mexican Candelaria Mining Company, Contra Estaca, Sinaloa, Mexico, 1926-27; flotation superintendent and later metallurgical superintendent in charge of milling for the Fresnillo Company, Fresnillo, Zacatecas, Mexico, where 2200 tons of cyaniding ore and 1700 tons of flotation ore are treated daily, 1927 to date. Mr. Bensacca reports that the first practical separation of galena and chalcoyrite from bulk lead-copper concentrate by means of sodium bichromate was made at Fresnillo. He devised the method in the laboratory and placed it in operation in the plant. It is still in use after five years and has been adopted in other plants. "In the early part of 1918", he writes, "I discovered that galena and sphalerite could be selectively separated by means of zinc sulphate and cyanide. As I left the Interstate-Calahan Mining Company soon afterward for war service, the development of the process was later made by others." Address: The Fresnillo Company, Fresnillo, Zacatecas, Mexico.

Class of 1912 (continued).

BUDDLE, G.A. Buddle, Richmond and Buddle, Aukland, New Zealand. Honorable mention, University of California.

BUWALDA, John Peter, B.S. Born in Zealand, Michigan, December 16, 1886. Awarded James M. Goewey Graduate Scholarship, 1912; Ph.D., 1915; instructor in geology, University of California, 1915-17; assistant professor in geology, Yale, 1917-21; associate professor, University of California, 1921-25; professor, University of California 1925-26; dean of summer sessions, University of California 1923-26; professor of geology and head of the division of geology and paleontology, California Institute of Technology, since 1926. Research associate, Carnegie Institute, and associate geologist, United States Geological Survey; member of federal board of expert advisers on the Yosemite National Park; A.A.A.S.; Geological Society of America (secretary of the Cordilleran Sect., 1922-27); Palaeontological Society of America; Seismological Society of America (director); American Association of Petroleum Geologists; American Association of University Professors; Sigma Xi; Theta Tau; Gamma Alpha. Clubs: Faculty (California Institute of Technology, University of California). Specialized in paleontology, structural geology, and physiography. He is listed in "Who's Who in America" and "American Men of Science". Address: 2103 San Pasqual Street, Pasadena, California.

COUNTRYMAN, R. 409 West 3rd Avenue, Long Beach, California.

DAVIS, S.B. 813 East 2nd Street, Salt Lake City, Utah. Honorable mention, University of California.

Class of 1912 (continued).

DODGE, J.F. Box 285A, Atherton Avenue, Menlo Park, California. Honorable mention, University of California.

GOODWIN, G.L. Manager, Pinal Dome Corporation, 747 South Bronson Street, Los Angeles.

HIGH, R.B. General manager, Shell Petroleum Corporation, St. Louis, Missouri.

HOUSE, H.H. Chief chemist, Exchange Lemon Products Company, Address: 1014 Romona Avenue, Corona, California.

HUDSON, F.S., engineer. With the Shell Oil Company, 1008 West 6th Street, Los Angeles. Honorable mention, University of California.

IRELAND, E. 225 Capp Street, San Francisco.

KEW, Wm. S., B.S. (M.S., 1914; Ph.D., 1917). Born in San Diego, California, June 15, 1890. He was assistant geologist, United States Geological Survey, 1917, associate geologist, 1918-20, geologist, 1920-24; with the Gulf Oil Corporation, 1924-25; Standard Oil Company, of California, since 1925. He made geological surveys for Marland Oil Company, in Sonora and Lower California, in 1917. Associate of Arts. Member, Geological Society; Association of Petroleum Geologists; Seismological Society; Paleontological Society, California Academy of Paleontology and Petroleum Geology. He is listed in "American Men of Science". Address: Post Office Box 1437 (Arcade Annex), Los Angeles.

LUND, N.J., furniture dealer and underwriter. Address: Ferndale, California.

MOODY, G.B., geologist. Standard Oil Company of California, 225 Bush Street, San Francisco.

Class of 1912 (continued).

MUHEIM, E.F., city engineer. Address: 2564 Howard Street, San Francisco.

NORMANDIE, De H. 234 West 76th Street, Los Angeles.

OATMAN, E.W., insurance broker. Address: 2647 Regent Street, Berkeley, California. Honorable mention, University of California.

ONSRUD, J.H. 565 Fairview Avenue, Oakland, California.

RAE, Colin Campbell, B.S. (honors in geology), geologist. Geologist, General Petroleum Corporation, Taft, California; geologist, Guggenheim Interests, Wyoming investigations, 1914-15; geologist, General Petroleum Corporation, Los Angeles, California, 1915-16; field superintendent, Great Dome Oil Company, Grass Creek, Wyoming, 1916-17; consulting petroleum engineer, Denver, Colorado, 1917-28; district engineer, United States Geological Survey, Okmulgee, Oklahoma, 1927-29; petroleum engineer, Skelly Oil Company, Tulsa, Oklahoma, 1929-36. Mr. Rae writes that he was one of the original locators of the Big Sand Draw Gas Field, Fremont City, Wyoming, and also participated in unit plan work on that field where he still has the largest individual royalty interest. He has published articles in the American Institute of Mining Engineers and American Association of Petroleum Geologists publications, and thinks that a mining engineering course, such as he studied at the University of California, gives excellent foundation for one to enter any of the various branches of the professions. Chemistry for water analyses, oil analyses, etc., geology for all oil operations, and engineering for general field problems are important for oil work. Mr. Rae further comments that it

is interesting to note that the small College of Mining class of 1912 included such successful and outstanding men as John Suman, vice president, Humble Oil Company; Fred Tickell, professor of petroleum engineering at Stanford; John Dodge, professor of petroleum at Throop Institute; etc. Address: Skelley Oil Company, Tulsa, Oklahoma.

SCHROEDER, W.H. 1626 Greenfield Avenue, Los Angeles.

SHORT, Maxwell N., B.S. (Ph.D., Harvard, 1923). Born in Pembina, North Dakota, March 21, 1889. Mining engineer in Mexico and Arizona, 1912-17; instructor in economic geology, Harvard, 1923-24; lecturer, 1927-28; junior geologist, United States Geological Survey, 1924-26; assistant geologist, 1926-30; and associate geologist since 1930. He has been professor of optical mineralogy, Arizona, from 1931 to the present time. Member, Society of Economic Geologists; fellow, Mineral Society; Washington Geological Society. Specialty: optical mineralogy and petrology; determination and paragenesis of the ore minerals. He is listed in "American Men of Science". Address: University of Arizona, Tucson, Arizona.

STANTON, W.P. President, National Stone Tile Corporation. Address: 2910 Derby Street, Berkeley, California.

STONER, R.C., B.S., geologist. Born in Bakersfield, California, August 18, 1889. He is geologist with the Standard Oil Company of California. Member, Paleontological Society and California Academy of Paleontology. He is listed in "American Men of Science". Address: 225 Bush Street, San Francisco.

SUMAN, J.R. Vice president, Humble Oil and Refining Company, 918

Class of 1912 (continued).

Humble Building. Honorable mention, University of California.

THOMPSON, P.W. (deceased).

TICKELL, Frederick C., B.S. (E.M., 1927). Born in Belleville, Ontario, Canada, April 19, 1886. Joseph Bonneheim Memorial Scholarship. He was a geologist with the Southern Pacific and Associated Oil Companies, 1916-21. Since 1921 he has been professor of petroleum engineering at Stanford University. Associate of Arts. Member, Association of Petroleum Geologists; Mining and Metallurgical Engineers. Specialty, correlation of sub-surface strata, detrital minerals, analytical spectroscopy, fragmental rocks. He is listed in "American Men of Science". Address: Stanford University, Palo Alto, California.

VAN DEVENTER, W.M.

VAUGHN, F.E., geophysicist. Shell Oil Company, 422 Higgins Building, Los Angeles.

WILSON, F.L. Honorable mention, University of California.

Class of 1913.

ALLEN, C.A. 1151 Spulveda Street, San Pedro, California.

BLACK, F.C., garage owner. 388 Howe Street, Oakland, California.

CHURCH, J.B. 5171 Fairfax Avenue, Oakland, California. Honorable mention, University of California.

CLARK, A.L., General manager, Companie Minera de Tamava Unificada, Casella 1140, Valle, Chile, South America.

CLAUSEN, E.H., petroleum engineer. With the John Manville Company. Address: 825-Oxford Street, Berkeley, California.

Class of 1913 (continued).

COLES, H.L., plant engineer. With the Pacific Telephone and Telegraph Company. Address: 207 Maple Street, San Francisco.

CORTELYOU, A.P., mining engineer (private practice). Address: 345-29th Street, Hermosa Beach, California.

DICKEL, A.C., metallurgist. Address: 642 Randolph Street, Napa, California.

EATON, A. (deceased). He was a consulting geologist for the Standard Oil Company. His residence was 115 Parkside Drive, Berkeley, California. Honorable mention, University of California.

ENGLEBRIGHT, Wm. H., mining engineer. Address: 741 Avenue Road, Toronto, Canada.

GESTER, Stephen H., B.S. Born in California 1899. Connected with geological survey, Southern Pacific Railway, 1913-14; geologist, Standard Oil Company of New Jersey, 1914-15; with the Standard Oil Company of California since 1916. At present he is assistant chief geologist. Member, American Association of Petroleum Geologists and Institute of Petroleum Geology. He is listed in "American Men of Science". Address: Standard Oil Company of California, 225 Bush Street, San Francisco.

HARNLY, R.W.

HARTMAN, J.W., mining engineer. Hall of Justice, Los Angeles.

HENNEBACH, E.R.L. Germany.

HILL, Earl G., B.S. Born in Santa Ana, California, April 1, 1890. Instructor in mining engineering, Carnegie Institute of Technology, 1918-20; assistant professor of metallurgy, Pittsburg, 1920-26; associate professor, 1926-31; industrial fellow, Mellon

Class of 1913 (continued).

Institute, since 1931. Member, Mining and Metallurgical engineers; Society for Testing Materials; Society for Steel Treatment; Franklin Institute; British Institute of Metals and Mining. He is listed in "American Men of Science". Address: Mellon Institute, Pittsburg, Pennsylvania.

KRIGBAUM, L.G. (deceased).

LEACH, R. Hayfork, California.

MEE, W.P., B.S. He was efficiency engineer, Oakland Mazda Lamp Works, 1913-14; assayer and surveyor, Shannon Copper Company, Gleeson, Arizona, 1914-15; sampler, Shannon Copper Company, Metcalf, Arizona, 1915; jigger boss, Ray Consolidated Mines, Ray, Arizona, summer of 1915; assayer, Asarco Plant, American Smelting and Refining Company, Asarco Dgo., Mexico, 1915-16; chief chemist, Chino Copper Company, Santa Rita, New Mexico, 1916-17; chemist, El Paso Smelting Works, El Paso, Texas, 1917-18; chief chemist, Matehuala Plant, American Smelting and Refining Company, Matehuala, S.L.T., Mexico, 1918-20, and Texas, 1920-21; experimental smoke research worker at Chihuahua and Matehuala, 1921-23; assistant superintendent, Aguascalientes Plant, American Smelting and Refining Company, Aguascalientes, Ags., Mexico, 1923; assistant superintendent, Globe Plant, American Smelting and Refining Company, Denver, Colorado, 1924; assistant superintendent and superintendent, A.V. plant, American Smelting and Refining Company, Leadville, Colorado, 1924-29; assistant general manager, Mexican smelting department, American Smelting and Refining Company, Monterey, N.L., Mexico, 1929-30;

superintendent in charge of construction, Mt. Isa Mines, Queensland, Australia, 1931-32; assistant general manager, Mexican smelting department, American Smelting and Refining Company, Mexico, D.F., Mexico, 1932-36. Mr. Mee writes that, although the training he received at the University of California was straight mining and geology rather than metallurgy, the fundamentals received during the course of instruction have proved very useful in his career as a metallurgist. Since graduation he has spent most of his time in Colorado, the Southwest, and Mexico, with the exception of one and one half years in Australia and six months traveling around the world. Address: American Smelting and Refining Company, Mexico, D.F., Mexico.

MORSE, Roy R., B.S. (Ph.D., 1922). Born in Jennings, Louisiana, October 7, 1890. Honorable mention for distinguished scholarship; teaching fellow in geology, University of California, 1913-17; instructor, 1920-23; assistant professor, 1923-25. His geological explorations follow: China and Philippines, 1914-16; Alaska, 1922; Mexico, 1923; various geological explorations since 1925; war minerals investigation, United States Geological Survey, and California Council for Defense, 1918-20. Contributions on mining engineering, structural geology, stratigraphy, and petroleum accumulation. He is listed in "American Men of Science". Address: 429 Higgins Building, 2nd and Main Streets, Los Angeles.

PFOUTZ, C.Y. 1136 1st Street, Salt Lake City, Utah.

Class of 1913 (continued)

SILVER, A., mine operator and metallurgical engineer. Address: Box 447, Tonopah, Nevada.

SPELLMEYER, C.A., mining engineer. Manager, Guanaceir Mining Company, Durango, Mexico. Home address: 485 California Street, San Francisco.

TALIAFERRO, N.L., B.S. (Ph.D., 1920). Born in Agusta, Kentucky, October 6, 1890. Honorable mention, University of California. Geologist, Standard Oil Company of New York, 1914-16; junior engineer, United States Bureau of Mines, 1917; instructor in geology, University of California, 1918-20; chief geologist, Ventura Consolidated Oil Fields, 1922-26. He has been associated professor of geology, University of California since 1926. Associate of Arts; fellow, Geological Society. Member, Association of Petroleum Geologists; Seismological Society; Mining and Metallurgical Engineers. Specialty: geology of the central Coast Ranges; structure and stratigraphy of the Sierra Nevada Mountains of California. He is listed in "American Men of Science". Address: University of California, Berkeley, California.

WHITE, C.K. 6277 21st Street, N.E. Seattle, Washington.

WYRICK, H.L. (deceased). He was field geologist for the Siskiyou Mining Company.

YOUNG, O.W., engineer. Valley Concrete Pipe Company, 6252 Hazeltine Avenue, Van Nuys, California.

Class of 1914.

ANDERSON, B.G., mining engineer. Engels Copper Mining Company, Anyox, British Columbia.

Class of 1917 (continued)

STAUFF, A.L. Gas operator and mechanical engineer. [illegible]
[illegible], Los Angeles, California.

STEELE, C.L., Oil producer. Manager, Consolidated [illegible]
Company, Bakersfield, California. Home address: 450 Gaffney
Street, San Francisco.

TALLAFERRO, L.T., B.S. (C.E.), 1899. Born in Georgia, [illegible]
October 6, 1880. Honorable mention, [illegible] in Mining and
Geology, Standard Oil Company of New York, 1914-19; Mining
engineer, United States Bureau of Mines, 1919; instructor in
geology, University of California, 1919-20; chief geologist,
Ventura Consolidated Oil [illegible], 1920-24. He has [illegible]
cited prizes in [illegible]. University of California since 1924,
associate of [illegible] Geological society [illegible]
tion of Petroleum Geologists; Scientific and Society [illegible]
and Metallurgical Engineers. Specialty: geology of the central
Coast Ranges; structure and stratigraphy in the Coast Ranges
[illegible] of California. He is listed in "Leaders [illegible] of America".
Address: University of California, Berkeley, California.

WHITE, C.W. [illegible] Flat Street, [illegible], Massachusetts.

WILCOX, J.A. (deceased). [illegible] Mining geologist for the Light
[illegible] Company.

YOUNG, C.W., engineer. Valle Concrete Pipe Company, [illegible]
Avenue, Los Angeles, California.

Class of 1918

ANDERSON, [illegible] Angeles. Graduate Department [illegible]
[illegible], Berkeley, California.

Class of 1914 (continued).

ARNOT, S.A., mining engineer. Pacific Lime and Plaster Company, Sloan, Nevada.

ASHLEY, W.J. 435 West Portal, San Francisco.

AVERILL, C.V. Honorable mention, University of California. Address: 1238 Court Street, Redding, California.

BALL, W.F., Jr. 1230 East 109th Street, Los Angeles.

BELLICK, D.C. Box 511, Nevada City, California.

CAMPBELL, M.K. Mining superintendent, Minas del Tajo, Rosario, Sinaloa, Mexico.

CARRELL, L.J. Service station engineer and designer for the Standard Oil Company. Home address: 1506 Sonoma Avenue, Berkeley, California.

CRAIG, E.K. 1234 Ethel Street, Glendale, California.

DAVIS, R.J.

DELERAY, B.R. 420 South San Pedro Street, Los Angeles.

DOUGLAS, Wm., mine owner and operator. Address: No. 5 Tulova Street, Sofia, Bulgaria.

EISENHAUER, R.C. Assistant engineer, Courey Placer Mining Company. Address: 1773 Tacoma Avenue, Berkeley, California.

GRAY, H.E. Manager of sales, Pacific Coast Steel Corporation, 20th and Illinois Street, San Francisco.

GUNN, R.L. 1413 Thayer Street, West Los Angeles.

HAGEMAN, A.K.

HASSHEIDER, J.H. Production engineer, Pure Oil Company, Rivera, California.

LORRAINE, P.M. 424 South Hidalgo Avenue, Alhambra, California.

Class of 1914 (continued).

McINTYRE, W.F.A.

McLAUGHLIN, Donald H., B.S. Born in San Francisco, December 15, 1891. Graduated with honors and received honorable mention for University of California medal. Graduate work at Harvard, receiving degree of A.M. in 1915; Sheldon traveling fellow in 1916; Ph.D. in 1917. First lieutenant, 63rd United States Infantry, 1917-19; chief geologist, Cerro de Pasco Copper Corporation, Peru, 1919-25; professor of mining engineering, Harvard, 1925-35; chairman, division of geological sciences and the department of geology and geography, Harvard, 1930 to date; professor of mining geology, Harvard, 1935 to date. Consulting geologist, Homestake Mining Company, 1926 to date; San Luis Mining Company, 1927 to date; Case, Pomeroy and Company (involving work in United States, Mexico, Canada, Australia, and Africa) 1933 to date. Member of council, Geological Society of America. Secretary, Society of Economic Geologists. Fellow, American Academy of Arts and Sciences. Member, American Institute of Mining and Metallurgical Engineers (chairman of committee on geophysical methods of prospecting, 1928-32); Mining and Metallurgical Society of America; Sociedad Geologica del Peru; Phi Beta Kappa; Sigma Xi; Tau Beta Phi; Phi Lambda Upsilon; Kappa Sigma. Clubs: Harvard (Boston and New York). He is listed in "Who's Who in America" and "American Men of Science". Specialties, bornite ores of copper; geology of Peruvian Cordillera; Pre-Cambrian gold ores; Tertiary gold and silver ores, Sierra Madre, Mexico. Mr. McLaughlin writes that training in the engineering sciences, as

Class of 1914 (continued).

far as he was concerned, was the most important part of his education received at the University of California. The high standards constantly maintained in such subjects by the College of Mining have, he thinks, been more important in preparing its graduates for careers in mining than instruction in any specific mining methods peculiar to California. Address: 110 Coolidge Hill, Cambridge, Massachusetts.

McMILLAN, W.D., mine owner and operator. Address: No. 5 Tulova Street, Sofia, Bulgaria.

MITSUDA, S., engineer. General manager of the Shinen Mine, Japan. Shinen Mine, Sukushugun, Chosen.

ORYNSKI, J.B., geologist. Address: 2804 Hillegas Avenue, Berkeley, California.

ORYNSKI, L.W., geologist. Chief geologist for the California Company. Address: Post Office Box 1140, Dallas, Texas.

PETERS, W.A., Jr. 271 Madison Avenue, New York, City.

RAY, H.H.

SMITH, F.M. (deceased), geologist. He was with the Pan American Petroleum Company.

STOCK, F.L. 19 Austin Place, Bloomfield, New York.

STROBACH, W.C., engineer. With the Westinghouse Electric, Apartado G., Guadalajara, Jalisco, Mexico.

WONG, W.F.C. Superintendent of M and R department, The Central Mint, Shanghai, China.

WRIGHT, J.B, 2131 Sherwood, San Marino, California.

Class of 1915.

BOWMAN, J.V. (deceased). He lived in Livermore, California.

FEELEY, J.C. Jr. 4306-6th Avenue, Los Angeles.

GARDE, de la, C.E. Waldener. Production engineer, Honolulu Consolidated Oil Company, Box 831, Taft, California.

HOFFMAN, E.A., city engineer. Address: 412 Washington Avenue, Richmond, California.

MC DONALD, J.A.

MC MILLAN, H.D. District engineer, Humble Oil Company, 2015 Smith-Young Tower, San Antonio, Texas.

MARQUARD, A.B., mining engineer. Address: Cia. Real del Monte y Pachuca, Hidalgo, Mexico. Honorable mention, University of California.

MELLEN, G.Z. Box 185, Johnstown, Colorado.

QUEEN, H.E., mining engineer. Address: 2538 Virginia Street, Berkeley, California.

ROCCA, B.T. President, Pacific Vegetable Oil Company, Address: 1225 Glen Avenue, Berkeley, California. Honorable mention, University of California.

SMITH, C.H. Engineering department, Standard Oil Company, El Segundo, 600 Amador Street, Richmond, California.

VEDDER, D.G., petroleum engineer. Address: 132 South Beachwood, Los Angeles.

WYLLIE, O.C., engineer. San Andreas, California.

TURTON, F.E. Mine superintendent, Braden Copper Company, Stewell, Rancagua, Chile, South America.

Class of 1916.

BRETHERTON, S.E., Jr. Proprietor, Paso Robles Electric Shop, 817-12th Street, Paso Robles, California.

BRUNEL, L.J., mining engineer. 1166 Holman Road, Oakland, California.

CATTELL, R.A., B.S., petroleum engineer. Born in New Sharon, Iowa, January 6, 1892. Employed by the Pacific Oil Company, Sunset Midway Oil Fields, Kern County, California, 1916-17; petroleum engineer, United States Bureau of Mines, Muskogee, Oklahoma, 1917-18; petroleum engineer, S. Pearson and Son and the Société d' Eludes des Recherches et d' Exploitation des Pétroles en Algérie, at Chesterfield, England, and St. Aime, Algeria, 1919-20; with the United States Bureau of Mines since February 1921. Mr. Cattell has been successively: natural gas engineer, assistant superintendent, and superintendent, Petroleum Experimental Station, Bartlesville, Oklahoma, and chief of Helium Division, including operation and construction of plants, development of new projects, surveys, etc., since 1925. With Transportation Corps, A.E.F., 1918-19. Member, American Institute of Mining and Metallurgical Engineers; American Petroleum Institute; American Gas Association; Delta Sigma Phi. He is listed in "Who's Who in America". Address: United States Bureau of Mines, Washington, D.C. Residence: 3903 Alton Place, N.W.

CAVINS, O.A., geologist. Standard Oil Company, Box 223, Taft, California. Honorable mention, University of California.

FARNLACHER, W.G. (deceased). Received honorable mention, University of California.

GAZARIAN, L.G. 1831 Arch Street, Berkeley, California.

Class of 1916 (continued).

SOYSTER, Merwin F. Born in Hanover, Illinois, March 27, 1892. University of California, 1914-16. Petroleum engineer and geologist, engaged in oil field development, with General Petroleum Corporation and Security Oil Company at Taft and Lost Hills, California, 1916-18; petroleum engineer, department of petroleum and gas, California State Mining Bureau, 1918-19; State oil and gas supervisor in charge of offices at Santa Maria and Los Angeles, 1919-23. He is now a consulting petroleum engineer in Los Angeles. Member of American Association of Petroleum Geologists. Clubs: Los Angeles Athletic, Masonic, Rotary (Los Angeles), Pacific Coast (Long Beach), and Deauville Beach (Santa Monica). He is listed in "Who's Who in California". Address: Western Pacific Building, Los Angeles, California.

GEIS, W.H., geologist. Address: 608 Subway Terminal, Los Angeles.

HOENIGMANN, F.J. Honorable mention, University of California. Address: 1032 North Austin Boulevard, Oak Park, Illinois.

KIRWIN, T.D. (deceased).

MC INTYRE, R.S., mining man. Address: 1026 North Heliotrope Drive, Los Angeles. Honorable mention for distinguished scholarship, University of California.

MILLER, W.B. 929 South Broadway, Los Angeles.

NOMLAND, J.O. Assistant geologist, Standard Oil Company, 225 Bush Street, San Francisco.

REICHIE, D.

WAITHAM, I de L., engineer. With the California Railroad Commission. Address: 1685 San Lorenzo Avenue, Berkeley, California.

Class of 1917.

BARKIS, H.B., Jr. Honorable mention for scholarship, University of California.

COFFEY, G.W., mining engineer. Honorable mention for scholarship, University of California. Address: Yukon Gold Company, Ampang, Selangor, Malay States.

d' EVELYN, W.E. Columbia Steel Corporation, 314 Phelan Building, San Francisco.

DILLINGHAM, G.B., mining engineer. Public Utility Manager. Address: Caixa 833, Rio de Janeiro, Brazil, South America.

GRAY, G.S. Tillamock, Oregon.

HALLUM, O.T.

HAZZARD, A.M. 2085 East Broadway, Long Beach, California.

HELGESSON, H.T. Ash Fork, Arizona.

KNOWLES, M.H. 2236 Grove Street, Oakland, California.

KROEGER, A.C. 4130 Lyman Road, Oakland, California.

LAUSEN, Carl, A.B. (M.S., 1923, Ph.D., 1931, Arizona). Born in Galveston, Texas, July 7, 1889. He was geologist with the Old Dominion Mine, Arizona, 1917-20; chief geologist, Montezuma Copper Company, Mexico, 1920-21; with the Arizona Bureau of Mines, 1921-27; field geologist, United Verde Copper Company, Arizona, 1927-30; and has been geologist with the United States General Land Office, Salt Lake City, since 1930. He made a summer expedition to Great Slave Lake, Canada, in 1928. Member, Society of Economic Geologists; Mineralogical Society. Specialty: general geology and ore deposits. He is listed in "American Men of Science". Address: Box 1223, Salt Lake City, Utah.

Class of 1917 (continued).

MAY, A.R., geologist. Shell Oil Company, 405 Haberfelde Building, Los Angeles. Honorable mention for scholarship, University of California.

OGILVIE, Q.J. 1222 Insurance Exchange Building, Los Angeles.

SCHUETTE, C.N., B.S., consulting mining and metallurgical engineer. He was employed by the United States Bureau of Mines and various quicksilver Mining Companies on research and experimental work on the metallurgy of quicksilver; superintendent of Mariscal Mine in Texas, 1919-20; additional quicksilver work for the United States Bureau of Mines, 1920-21; manager of the Rosebud (silver) Mine in Colorado, 1921; work on gypsum and quicksilver deposits in Nevada, 1922; in charge of experimental work on Pike process for Santa Cruz Portland Cement Company; designer, builder, and operator of a 500 bbl. per day experimental unit of a new (Pike process) method of making cement clinker(the Herreshoff furnace developing into a high temperature furnace and being used as such for magnesite at Chewelah, Washington, as a result of this work); consultant, 1925 to date. In 1925 Mr. Schuette designed and directed construction of the plant of the Clay Corporation of California at Lincoln, California (the Raymond mill being first adopted here to the fine grinding of fire clays). In 1926 he designed and supervised construction of the Opalite reduction plant in Oregon. In 1927-28; he worked with induction furnaces and developed a new method of making coils for such furnaces. Since 1925 he has made examinations of mines and mineral deposits from Canada down into Mexico and from the

Class of 1917 (continued).

Pacific to the Rocky Mountains. These included gold, silver, mercury, chrome, manganese, magnesite, limestone, sand, clay, gypsum, bentonite, tungsten, and various other types of deposits. He has contributed many articles to the technical press and is internationally known for his quicksilver work. His early work on quicksilver for the United States Bureau of Mines laid the foundation for the improvements that have revolutionized reduction methods formerly used. His later work on the geology of quicksilver ore bodies has been acknowledged as most helpful. Lately he has several times been called upon to take charge of mines that were in distress, for the purpose of reorginization and getting them back to profitable operation. A list of quicksilver publications by C.N. Schuette follows: "Fume and Other Losses in Condensing Quicksilver from Furnace Gases" (Duschak and Schuette), Technical Paper 96, United States Bureau of Mines, 1919; "Condensing Quicksilver from Furnace Gases," Mining and Scientific Press, January, 1918. "The Sampling and Estimation of Quicksilver Ore", Mining and Scientific Press, February, 1921; "Production of Quicksilver in Europe" (Translation), Metallurgical and Chemical Engineers, Vol. 19 and 20, 1918-19; "The Birth of Mercury Ores", Engineering and Mining Journal, August, 1922; "The Metallurgy of Quicksilver" (Duschak and Schuette), Bulletin 222, United States Bureau of Mines, May, 1925; "Determination and Diminution of Losses in the Metallurgy of Quicksilver" (Translation), United States Bureau of Mines, 1919; "Quicksilver", United States Bureau of Mines, Bulletin 335, 1931; "Occurance

Class of 1917 (continued).

of Quicksilver Ore-Bodies" (Translation), American Institute of Mining Engineers, Volume 96, 1931; "Quicksilver Mining in the United States", Compressed Air Magazine, April, 1931; "Recent Design of Quicksilver Plants", Engineering and Mining Journal, Volume 131, page 316; "Limiting Factors in Quicksilver Metallurgy", Engineering and Mining Journal, Volume 132, page 398; "Dust Collecting Efficiency Increased in Quicksilver Plants", Engineering and Mining Journal, Volume 133, page 236; "Quicksilver and the American Producer", The Mining Journal (Arizona), June, 1932; "Advance in Quicksilver Expected", Mining and Industrial News, May, 1933; "Lahontan Quicksilver", Engineering and Mining Journal, Volume 134, page 329; chapter XV on "Quicksilver" in "Modern Uses of Nonferrous Metals", American Institute of Mining Engineers, Series 1935. Address: 533 Call Building, San Francisco.

SPRAGUE, W.W. 31 East 49th Street, Savannah, Georgia.

STARBIRD, R., engineer. Miami Copper Company, 120 Broadway, New York City. Honorable mention for scholarship, University of California.

TURNER, O.M. Jr., mining engineer. Address: Box 341, Lincoln, California.

WALL, E.R. With the California Company. Address: Post Office Box 1140, Dallas, Texas.

WISSER, E.H. Honorable mention for scholarship, University of California. Address: Apt. #3, Pachuca Hidalgo, Mexico.

Class of 1918.

BARDEN, G.S.

DUNCAN, D.M. Honorable mention for scholarship, University of California.

HUMPHREY, H.B.

SALTER, D.W.

SPANKE, Peter J. Braden Copper Company, Rancaqua, Chile, South America.

STERRY, A.M., mining engineer. Superintendent, Plateros unit of the Fresnillo Company, Fresnillo, Mexico.

Class of 1919.

ALTSHULER, H.J. General superintendent of Mines, Los Cojos, Apartado #3, Pachuca Hidalgo, Mexico. Honorable mention for scholarship, University of California.

FIREBAUGH, F.L.

INMAN, W.E. Honorable mention for scholarship, University of California. Address: 2028 Bancroft Way, Berkeley, California.

LANE, T.P. 158 State Street, Albany, New York.

MEE, K.J., metallurgist. Address: Apartment 251, Monterey N.L., Mexico.

MEKLER, L.A. 5461 Everett Avenue, Hyde Park Station, Chicago.

PHILLIPS, W.W. President, Phillips Development Company, Phillips, Montana.

SCHULTZ, H., mining engineer. Address: 22 Sagamore Road, Bronxville, Westchester, New York.

WHITTLESEY, H.C. Honorable mention for scholarship, University of California. Address: 525 North Normandie Avenue, Los Angeles.

Class of 1920.

ANDREWS, George Lindley, petroleum engineer. Born in Norwalk, Ohio, May 20, 1898. He attended University of California, 1916-20, and University of Kansas, 1920-22. He engaged in petroleum engineering for the Standard Oil Company of California in 1922 and is now district petroleum engineer, producing department of the southern division of the same company. Member, Alpha Delta Phi, Sigma Gamma Epsilon. He is listed in "Who's Who in California". Business address: Standard Oil Company of California, Whittier, California. Residence: 525 North Alta Avenue, Whittier, California.

BRUSSOLO, V.A. Assistant superintendent, Montezuma Copper Company, Pilares De Nacozari, Sonora, Mexico.

BURDICK, S.R., engineer. Miami Copper Company, Box 193, Miami, Arizona.

CHRISTIE, L.G., geologist. Address: Box 1162, Tulsa, Oklahoma.

COLLINS, D.B. Production manager, Shell Oil Company, Huston, Texas.

DEANE, J.T. 437 Carlston Street, Richmond, California.

GRESHAM, J.R. Estate Los Pajos, Tanama Mines, West Indies.

GUNSFELTER, O., engineer. Union Oil Company, Union Oil Building, Los Angeles.

HENRY, L.W., geologist. Richmond Petroleum Company, Apt. 93, Maracarbo, Venzuela, South America.

HULIN, Carlton D., B.S. (Ph.D., 1924). Born in Eugene, Oregon, July 6, 1896. Honorable mention for scholarship, University of California. He was geologist, Sun Oil Company, Venezuela, 1920-21; instructor in geology, University of California, 1921-24; assistant professor, 1924-27; associated professor since 1927; consulting geologist, 1920; consultant, United States Bureau of Reclamation,

Class of 1920 (continued).

1925. He was with the Departmento Fomento y Agr., Mexico, 1925; the United States Smelting, Refining and Mining Company since 1926; the State Division of Mines, California, since 1928. He was chief geologist with Cia de Real del Monte y Pachuca, Mexico, 1926-27. Fellow, Geological Society. Member, Association of Petroleum Geologists; Mining and Metallurgical Engineers; and Seismological Society. Among his contributions are to be mentioned: Geology and Ore deposits of Randsburg Quadrangle, California; Metallization from Basic Magmas; Structural Control of Ore Deposition; A Mother Lode Gold Ore; Geology and Mineralization at Pachuca, Mexico; Subsequent Faulting in the Great Basin; Geology of the Searles Lake Quadrangle; and California Ore Textures. He is listed in "American Men of Science". Address: Room 203, Bacon Hall, University of California, Berkeley, California. Residence: 1711 Central Avenue, Alameda, California.

LONG, C.T. Hillman Long, Inc., Oil Lands. Address: Sub-Terminal Building, Room #1052, Los Angeles.

O'BRIEN, G.T., B.S. Engineer for general contractors, on highway and subway construction in East Bay District, during first ten years after graduation; worked on the metallurgy and construction of a pilot plant for the retreatment of refractory mill tailings from Central Eureka Mine in Amador County, 1930-32; associated (as supervisor) with Hamilton, Beauchamp and Woodworth, who financed and managed his Central Eureka project, since 1932; developed and supervises project financed, in 1935, by Woodworth and known as the Delta Tailings Company, treating the old Mother

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Lode tailings which have been carried down into the valleys below the mines and deposited on farm lands.

Mr. O'Brien writes that the most unusual feature of his work has been the prospecting for mill tailings of the water courses below the old mines; his belief that the old mill tailings had not been carried out to the Pacific Ocean has been verified and his efforts finally found consumation in a modern metallurgical operation which successfully recovers values discarded by mine operators who, in addition to losing these values, paid the farmers damages because these tailings were, years ago, deposited on their fields. Address: Hamilton, Beauchamp and Woodworth, Inc., 564 Market Street, San Francisco.

O'NEILL, F.E., engineer and geologist. Address: 118 Flower Street, Huntington Park, California.

PARKER, Ralph. Superintendent of mine for the International Nickle Company, Copper Cliff, Ontario.

PASCOE, H.L. 1102 Walker Bank Building, Salt Lake City, Utah.

PETERSON, M. Assistant manager of Sales, Pacific Coast Steel Corporation, Post office Box 1127, Arcade Station, Los Angeles.

RICHARDS, J.A. Assistant superintendent, Consolidated Copper Mine, Kimberly, Nevada.

TRESCHER, F.G. Chief engineer, S.S. department, United Verde Copper Company. Address: 1457 Dorothy Drive, Glendale, California.

WILLIAMS, H.S. District manager, Shell Oil Company of California, Post office Box Y., Martinez, California.

Class of 1921.

BERLIN, P.L. Honorable montion for scholarship, University of California. Address: 2156 Central Avenue, Alameda, California.

CROOK, T.H. Standard Oil Company of California, Post Office Box 1200, Bakersfield, California.

CUNNINGHAM, G.M. Standard Oil Company of California, 225 Bush Street, San Francisco.

FIFE, W. Address: c/o L.F. Cunningham, El Dorado Oil Works, Foot of University Avenue, Berkeley, California.

HARDISON, H., petroleum engineer. Standard Oil Company, Box 1021, Colorado, Texas.

HUBBELL, J.D., engineer. State Highway Commission, R.F.D. 1-Box 367, Campbell, California.

KLINGMAN, G.L., petroleum engineer. California Company, Midland,Texas.

LLOYD, H.E. 444 Tennyson Avenue, Palo Alto, California.

MOSS, F.A. 31 Angelo Street, South Perth, Western Australia.

REPATH, Kenneth H. Assistant refinery superintendent, Hansteda Petroleum Company, Tampico, Mexico.

ROGERS, J.M. Hemet, California.

SALSBURY, R.T.

SANDNER, H.W. Assistant manager, S.F. Bowser and Company, 64 San Mateo Road, Berkeley, California. Honorable mention for scholarship, University of California.

SCLATER, K.C. Editor, The Petroleum Engineer Magazine, 406 Tower Petroleum Building, Dallas, Texas.

SCOTT, R.W. 315 Montgomery Street, San Francisco.

SHELL, John Samuel, B.S. Born in Denver, Colorado, 1898. He was

Class of 1921 (continued).

instructor in chemistry and metallurgy, College of Dentistry, University of California, 1921-25; assistant professor since 1925. Special work as consulting physical metallurgist; contributions in the field of metallurgy and chemistry; and studies concerning the metallography of gold alloys used in dentristy and the influence of diet on human saliva. Associate of Arts. Member, International Association of Dental Research (secretary, California section, since 1924); Chemical Society. He is listed in "American Men of Science". Address: 1364 Drake Avenue, Burlingame, California.

WEBB, E.W. Superintendent, Continental Oil Company, Box 1123, Ventura, California.

WOLFLIN, G.E. 1920 Monterey Avenue, Berkeley, California.

Class of 1922.

BREMNER, C.S., geologist. Address: N.V. Netherlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

BURCHFIEL, H.L., geologist. With the California Company. Address: Post Office Box 1140, Dallas, Texas.

CARMICHAEL, C.H. Bret Harte Inn, Grass Valley, California.

CHALMERS, J., petroleum engineer. Address: 1543 Dewey Avenue, Bartlesville, Oklamoma.

CHAPMAN, L.H.

KING, C.R., engineer. Research engineer for the United Verde Copper Company, Clarksdale, Arizona.

KREBS, C.E. Santa Rita, New Mexico.

Class of 1922 (continued).

LEWIS, Raymond C., geologist. With the Stanolind Oil and Gas Company, Midland, Texas.

McCONNELL, P.C., petroleum engineer. With the Standard Oil Company. Address: 6065 Olympic Boulevard, Los Angeles.

MacMILLAN, D.A., Jr.

MIX, C.A., geologist. With the California Company. Address: Petroleum Building, Midland, Texas.

PERRY, V.D. Apex Hotel, Butte, Montana. Honorable mention for scholarship, University of California.

REDDEN, L.R. 1426 Marsh Street, San Luis Obispo, California.

SHENON, Philip J., B.S. (M.S., Idaho, 1924; Ph.D., Minnesota, 1926), geologist. Born in Salem, Idaho, September 19, 1897. Geologist, San Francisco Mines of Mexico, 1926; Continental Oil Company, 1927; Idaho Bureau of Mines and Geology, 1928. Assistant professor of geology and geologist, Montana Bureau of Mines and Geology, 1928-30; assistant geologist, United States Geological Survey, 1930-31; associate geologist since 1931. Specialty: geology of ore deposits. He is listed in "American Men of Science". Address: United States Geological Survey, Washington, D.C.

SOYSTER, Hale B., A.B. Born in Minneapolis, Minnesota, November 1, 1899. He was associate petroleum technologist, United States Bureau of Mines, 1924-25, and has been petroleum engineer (chief of oil and gas leasing division), United States Geological Survey, since 1925. Specialty: petroleum geology, production, and engineering. He is listed in "American Men of Science". Address: 5808 Nevada Avenue N.W., Washington, D.C.

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Class of 1922 (continued).

THORNBURG, H.R. 2601 Rosedale Avenue, Houston, Texas.

TOMETZ, J.A.

VIETTE, W.V., petroleum engineer. With the Texas Company, Houston, Texas.

WARREN, G.H., engineer. Southern California Gas Company. Address: 1425 Palm Avenue, San Gabriel, California.

YATES, A.B. 328 Gertrude Street, Sudbury, Ontario, Canada. Honorable mention for scholarship, University of California.

ZIMMERMAN, J.R.

Class of 1923.

BALLING, W.M. Superintendent, Western Borax Company, 421 South San Gabriel Boulevard, San Gabriel, California.

BERTLAUX, H.L. Test engineer, Standard Oil Company. Address: 1047 Nielson Street, Berkeley, California.

BRAMMING, V.E., metallurgical engineer. Bulolo Gold Dredging Company, New Guinea (Russ Building, San Francisco).

CAMPBELL, A.B., B.S. Student at Montana State College and University of Michigan before attending college at Berkeley. Employed by the Anaconda Copper Mining Company, transportation department, department of farms, and electrolytic zinc plants at intervals from 1907-18 (general forman, at the time of leaving Anaconda, of their plants at Great Falls, Montana); spent one year as superintendent of the electrolytic zinc plants, Western Chemical Company, Denver, Colorado, after having spent a short period in the army (was in officers' training camp, field artillery, at the

Chemical [illegible]

[illegible], H.M. ACOF [illegible] Houston, Houston, Texas.

TORRELL, J.A.:

VERTIE, W.T.; petroleum engineer. With the Texas Co., [illegible] Texas.

WARREN, G.M., engineer. Southern California Gas Co., [illegible] 1420 [illegible] Avenue, San Gabriel, California.

[illegible], L.A. The Gorham Street, Sudbury, Ontario, Canada. [illegible] mention for scholarship; University of California.

ZHIRNOVA, I.N.

City of Japan.

[illegible], N.L. Superior [illegible], Rotorua Lorax Copper, [illegible] Cabrial Hondi [illegible], Cerritos, California.

[illegible], Vic. Test [illegible], Standard Oil Company, [illegible] Wallace Lorson, Berkeley, California.

[illegible], V.E., mechanical engineer. Bucyrus Erie [illegible] Company, New Orleans (Free Building, San Francisco).

CARPENTER, Rev. R.C. Student at Montana State College [illegible] of Michigan before entering college at Berkeley. Followed by the Anaconda Copper Mining Company, [illegible] department of [illegible], and electrolytic [illegible] Free [illegible] (general [illegible], at the time [illegible] of their plants in Great Falls, Montana); [illegible] superintendent of [illegible] electrical [illegible] Company, [illegible], California, [illegible] Steamship (now in office) [illegible] building [illegible]

Class of 1923 (continued).

end of the war); spent the summer of 1923 making investigations and examinations of possible dredging development on the Bavispe and Montezuma Rivers, head-waters of the Yaqui in Sonora, Mexico; was with the staff of Oliver Filters, Inc., 1923-33, and was active, during this period, in the development and modernization of filtration equipment as applied to the alkali industries and in solution of various metallurgical problems; assisted in the develipment and application of the Oliver-Borden process and the Oliver-Campbell process for filtration of cane sugar muds and clarification of sugar juices. Moved to Grass Valley in 1933, and became active in development of mining prospects and in general metallurgical and mine examination work in the Mother Lode area; was associated, during this period, with the Idaho Maryland Mines; resident manager, Plumbago Mine at Allegheny, 1934-35. (The historic Plumbago Mine was completely rehabilitated and equipped with electric power, necessary tools and modern machinery during this period. As a result, high-grade ore was opened at the Plumbago Mine in January 1936, and indications are that this property will again be an active producer. The rehabilitation and opening of the Plumbago Mine, an isolated area in the High Sierras, was an adventure beset by many vicissitudes. Mr. Campbell was fortunate in his choice of a crew to handle this hazardous work with no minor or major accidents and with costs considerably below those estimated.)

Mr. Cambell is now on the executive staff of the Pacific Coast Borax Company, with headquarters at 510 West Sixth Street,

Class of 1923 (continued).

Los Angeles. Mr. Campbell has seen standard units of metallurgical equipment, such as Oliver Filters, Dorr Thickeners and Classifiers, etc. solve many problems in the various chemical and allied industries and has found many men with theoretical training in mining and metallurgy making these innovations successful in these fields. "This is notably true of California mining engineers," Mr. Campbell writes, "and, I believe, it can be ascribed to a considerable extent to the broad vision and beloved characters of Dean Christy and Dean Probert." Address: Pacific Borax Company, 510 West 6th Street, Los Angeles.

CERINI, W.F., gas engineer. Union Oil Company, 2902 East California Street, Huntington Park, California.

CUFFEE, F.C. 16 Broadmoor Avenue, San Anselmo, California.

DAY, H.L., mining engineer. 114 Cedar Street, Wallace, Idaho.

DEAN, C.J., geologist. With the General Petroleum Corporation, 1001 Higgins Building, Los Angeles.

DE MARIS, E.L. General Petroleum Corporation, Higgins Building, Los Angeles.

ELLIS, L.E., engineer. 1120 Hunting Drive, South Pasadena, California.

FAGIN, V.A. Field superintendent, 942 Kensington Road, Los Angeles.

GARDINER, C.M. Manager, valuation engineering department, California Petroleum Company. Address: Box 67, Roscoe, California.

GIVEN, R.A., 715 Cleveland Street, Oakland, California.

GOLDMAN, F. Manager, Petroleum Supply, Inc. Address: El Tejon Hotel, Bakersfield, California.

GOSS, W.P. Mine foreman, Park City Consolidated Mining Company,

[illegible]

Los Angeles. [illegible]

Im[illegible], [illegible] Oil[illegible]

Chemistry, [illegible]

and Allied Industries [illegible]

[illegible]

[illegible] "While is nothing [illegible]

[illegible] engineers." [illegible] Chemical [illegible], [illegible], I believe, [illegible]

be learned in a [illegible] the [illegible] and [illegible]

[illegible] characters [illegible] "[illegible]," address,

[illegible] Kern County, [illegible] Street, Los Angeles.

CRAMER, W.E., [illegible] on lease. [illegible] Company, [illegible] California.

Street, [illegible] California.

CRIPPEN, F.W. [illegible] Los [illegible], California.

DAY, H.L., mining engineer. The Oxar Street, Wallace, Idaho.

DEAN, G.I., geologist. [illegible] Chemical Corporation.

1003 Higgins Building, Los Angeles.

DE [illegible], H.L. General Petroleum Corporation, Higgins Building,

Los Angeles.

MILLER, I.H., engineer. 1180 Mission Drive, South [illegible], California.

MOOIN, V.A. Field superintendent, [illegible] Kern, Los Angeles.

OSBORNE, C.L. Manager, [illegible] Drilling Department, California

Petroleum Corporation. Address: [illegible], Kern, California.

OLVEN, R.A., 710 Cleveland Street, [illegible], California.

POOL, F. Manager, Petroleum Supply, Inc. Address: El Cajon

Hotel, Bakersfield, California.

COSS, W.F. Pipe [illegible], Park City [illegible] Engineer Company.

Class of 1923 (continued).

Park City, Utah.

HENRY, S.B., geologist. California Arabian Standard Oil Company. Address: c/o Mesopotamia Persian Corporation, Bahrein Island, Persian Gulf.

HIERONYMUS, A.S. 2440 Santa Clara Avenue, Alameda, California.

HILLMAN, A.C. Santa Barbara, California.

HOFFMAN, E.R. 2064 Allston Way, Berkeley, California.

HOWETH, I.K., geologist. With the Roxana Petroleum Corporation, National City Bank Building, San Antonio, Texas.

HURNDALL, J.P. 417 South Hill Street, Los Angeles. Honorable mention for scholarship, University of California.

JOHNSTON, W.H. 525-6th Street, San Francisco.

KREBS, K.R. Box 21, Moravia, California.

LEE, H.W., petroleum engineer. With the Union Oil Company. Address: 2711 San Emidio Street, Bakersfield, California.

LEWIS, C.H., mine foreman. Address: 651-14th Avenue, San Francisco.

LINNEY, H.E., insurance underwriter. Address: 1509 West 15th Street, Long Beach, California.

LONGYEAR, P.O. (deceased). He was employed by the Miami Copper Company. Reported killed in a glider accident, 1931 or 1932.

McINTYRE, G.L. 2829 Benvenue Avenue, Berkeley, California.

METZ, J.

MOREL, L.F. Superintendent, San Louis Mining Company, Taylita Dinango, Mexico.

NELSON, R.N. N.V. Netherlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

[illegible] City, [illegible].

[illegible] S.L., geologist. California Arizona [illegible]

Address: c/o [illegible] Petroleum Corporation [illegible],

Houston, Tex.

HUNG[illegible], L.G. [illegible] Oil Company, [illegible].

HILLMAN, A.C. [illegible] Co. [illegible].

HOUFTON, E.H. 2004 Alisal Way, Berkeley, California.

[illegible], I.N., geologist. With the Mexican Petroleum Corporation,

National City Bank Building, San Antonio, [illegible].

HUDDLE, J.P. [illegible] Los Angeles. [illegible]

[illegible]ation for geologists [illegible] of California.

JOHNSTON, W.H. [illegible], San Francisco.

KEPPE, R.L. Fox St. [illegible], California.

LEE, I.W., petroleum engineer. [illegible] Oil [illegible], Idaho.

2721 San Emilio Street, Bakersfield, California.

LEWIS, C.L., [illegible] Forum. Address: [illegible] Avenue [illegible].

LIEBY, H.M., insurance underwriter. Address: 1000 [illegible] Bldg.,

Long Beach, California.

LOMBARD, T.O. (deceased). In the employ of the Texas Gulf Sulphur

Company. Reported killed in a plane crash [illegible] 1941 or 1942.

McLAUGHLIN, C.L. 2629 Warwick Avenue, Berkeley, California.

MEYER, J.

MORRIS, L.T. Superintendent, San Louis Mining Company, Santa

Eulalia, Mexico.

MUSSON, R.F. R.V. Netherlands-Indie Mexico [illegible] Talang

Akar, Batavia-Sumatra, Java, D.E.I.

Class of 1923 (continued).

NICKERSON, C.M., petroleum engineer. United States Navy Department. Address: Box cc, Taft, California.

ROBINSON, E.F. Test engineer, Nevada Copper Company, Box 1282, McGill, Nevada.

ROGERS, L.R. 3817 Livingstone Drive, Long Beach, California.

ROONEY, E.D. (deceased). He was mining engineer for Roan Antelope Copper Mines, Lusanshya, North Rodesia, Africa.

RUYLE, R.R. Concord, California. Honorable mention for scholarship, University of California.

SCARFE, G.O., geologist. With Benguet Mining Company, Baguio, Philippine Islands.

SIEVERT, G.E., ceramic engineer. With West Coast Porcelain Company, 8169 San Antonio Street, South Gate, Los Angeles.

STEAD, De Witt, G. 2326 Edward Street, Berkeley, California.

STICKNEY, L.W. Engaged in mining, Colnechaea, Bolivia.

TINKHAM, J.H. California representative of the Oil and Gas Journal. Address: 2941 Raymond Avenue, Los Angeles. Honorable mention for scholarship, University of California.

VANCE, H.J. Midland, Texas. Honorable mention for scholarship, University of California.

VITKOVSKY, G.N. Cleveland Tractor Company, Cleveland, Ohio. University of California fellowship in geology.

WALLACE, W.M. Honorable mention for scholarship, University of California.

WEATHERSTON, D. The California Company, Post Office Box 1140, Dallas, Texas.

Class of 1923 (continued).

WILCOX, E. Sales engineer, foreign department, Bucyrus-Erie Company, 805 Minn Avenue, South Milwaukee, Wisconsin.

WILES, G.B. General superintendent, Park City Consolidated Mining Company, Park City, Utah.

Class of 1924.

ALLEN, A.J.

ASHLEY, J.H. Superintendent, Caldelaria Unit Cia Dos Carlos, Chalchehuetes Zac, Mexico. Joseph Bonneheim Memorial Scholarship.

BARR, R.J. Braden Copper Company, assistant electric superintendent, Anglo-Chilian Consolidated Nitrate Corporation, Rancaqua, Chile, South America.

BESSINGER, V.C.

BOGDOSARIAN, A.B.

BROWN, R.I., petroleum engineer. With the Standard Oil Company, Taft, California. Honorable mention for scholarship, University of California.

BURGESS, C.R., engineer. Standard Oil Company, Standard Oil Building, 225 Bush Street, San Francisco.

BYLER, R.E. The Mexican Corporation Fresnillo, Vacentecas, Mexico. Honorable mention for scholarship, University of California.

CARTWRIGHT, W.D.

DONALDSON, W.G. Itogan Mining Company, Box 252, Baguio, Philippine Islands.

DRAPER, E.V., B.S. Engaged in residence construction in Los Angeles and vicinity, 1924-27; asbestos mining in Arizona, 1927-28, and residence and factory construction in Los Angeles, 1928; mine

Class of 1924 (continued).

superintendent, Emsco Asbestos Company, Downey, California, 1928-30 (the mine is located in Gila County, Arizona); factory foreman, Emsco Asbestos Company, Downey, 1930-1933; mine superintendent, Emsco Asbestos Company, Downey, 1935-36.

Mr. Draper has had nine years experience in the mining, milling, fabricating, and treatment of asbestos and asbestos products. As far as he knows, he is the only graduateof the College of Mining in this line of work. The work calls for special processes and special machinery; while none of Mr. Draper's school work was directly in this line, yet the principles and methods taught have been used in the development of the mining and milling procedure. The mine development is unique in that the ore body is being mined in such a way that there is always a solid wall on one side from the working stope faces to the surface, thus eliminating any chance for men being caught underground by a cave-in. Natural ventilation has been secured by the use of two levels, with connecting raises, and shields over the entrances. Address: Emsco Asbestos Company, Downey, California.

FOX, J.P., geologist. Richmond Petroleum Company of Mexico.

GILBOE, J.D., geologist. Shell Oil Company, 405 Habersfelde Building, Bakersfield, California.

GRASER, F.A., petroleum engineer. Drawer Z., Ventura, California.

GREEN, F.C. Utah Copper Company, Salt Lake City, Utah.

HAENSHELL, D.T.

HAGERTY, L.W. 5019 East Florence Street, Bell, California.

Class of 1924 (continued).

HARDY, Norman. N.V. Nederlandsche Pacific Petroleum Mij., Korte Vijverberg 5, Den Haag, Holland.

HAYES, J.D. 406 South Main Street, Santa Ana, California.

HOOD, A.W. Engineering department, Los Angeles Junior College. Honorable mention for scholarship, University of California.

HOWARD, P.J., petroleum engineer. State of California Division of Oil and Gas. Honorable mention for scholarship, University of California; also Joseph Bonneheim Memorial Scholarship. Address: Box N, Taft, California.

JOHNSON, F.E., engineer. Federal Mining and Smelting Company, Mullan, Idaho. Also Box 256, Baguio Mt. Province, Philippine Islands.

JOUBERT, J.C. Agricultural College, Stellenbosch, Union of South Africa.

KOCH, T.W., geologist. N.V. Nederlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

LAKE, C.L. Superintendent, Oil Company, 280 Temple, Texas.

Le FIELL, S.N. Assistant manager, John's Hanger Company, 709 Harrison Street, San Francisco. After leaving the University he went directly into business with his father in San Francisco.

LETCHWORTH, P.E. Anaconda Copper Mining Company. Address: 159 Myrtle Street, Claremont, New Hampshire. Honorable mention for scholarship, University of California.

MICHELIAN, Jas. Manager, Royalty Service Corporation, Oil Producers, Long Beach, California.

MILISCH, C.F. Sales engineer, Merrill Company, San Francisco.

MILLER, R.P. Standard Oil Company, 225 Bush Street, San Francisco.

[illegible] 1944 (mimeo) [illegible].

[illegible], [illegible]. [illegible] the Pacific Petroleum [illegible]. [illegible]
[illegible] S. [illegible] Lake.

[illegible], [illegible]. [illegible], San Jose, California.

[illegible], A.L. [illegible], [illegible] [illegible].

[illegible] [illegible] [illegible] Univers[illegible] [illegible].

[illegible], [illegible]. [illegible] [illegible] of California [illegible] on [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible].
California; [illegible] [illegible] [illegible] [illegible] [illegible].
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[illegible], [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible],
Idaho. [illegible] [illegible] [illegible] [illegible], [illegible] [illegible].

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[illegible] [illegible], [illegible] [illegible], [illegible], [illegible].

[illegible], C.L. [illegible], [illegible], [illegible], [illegible], [illegible].

Le [illegible], [illegible]. [illegible] [illegible] [illegible] [illegible], [illegible]
[illegible] [illegible]. [illegible] [illegible]. [illegible] [illegible] [illegible].
no [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible], [illegible]. [illegible] [illegible] [illegible] [illegible], [illegible]: [illegible]
[illegible], [illegible], [illegible] [illegible]. [illegible] [illegible]
[illegible], [illegible] of California.

[illegible], [illegible], [illegible] [illegible] [illegible]. [illegible] [illegible],
[illegible] [illegible], California.

[illegible], [illegible]. [illegible] [illegible] [illegible], San [illegible].

[illegible], [illegible]. [illegible] [illegible], [illegible] [illegible], San [illegible].

Class of 1924 (continued).

MOCH, F.J.

OSPINA, T., Jr., engineer. Cia Minera de Colombia Bolivar, Madellin, Columbia, Canera.

PENNEBAKER, E.N., geologist. Consolidated Copper Mines, Kimberly, Nevada. Honorable mention for scholarship, University of California.

PERRY, D.C. Box 491, San Anselmo, California.

RATHWELL, H.B., geologist. Continental Oil Company, 427 Lupin Way, Ventura, California.

REYNOLDS, L.J., mine superintendent. Address: Apt. 85, Farral Chia, Mexico.

RUTHERFORD, J.T., engineer. Standard Oil Company, Richmond, California.

SCHIFF, M.F. Manager, Schiff's Department Store, Silver City, New Mexico.

SIZER, F.M. 634 South Friends Street, Whittier, California.

SOO HOO, L. (deceased).

STAPLES, C.P. 36 Clay Street, Santa Cruz, California.

STEWART, R.J.G., consulting geologist. Box 654, Rockdale, Texas.

SWEET, J.R., mining engineer. Warren Foundry and Pipe Corporation, 1003 Arlington Avenue, Oakland, California.

TAYLOR, D.E., geologist. Shell Oil Company, Bakersfield, California.

TAYNTON, M.- Falls Church, Virginia.

TRAVAINI, D. 1022 East Willetta Street, Phoenix, Arizona.

TRENCHARD, J., geologist and petroleum engineer. San Antonio, Texas.

WELLANDER, H.H., engineer. Texas Company, Box 817, Wilmington, California.

Class of 1924 (continued).

WITHERSPOON, G., petroleum engineer. Standard Oil Company, Box 997, Inglewood, California.

WRIGHT, T.R., mining engineer(in South America). Home address: 621 South Hope Street, Los Angeles.

Class of 1925.

BERLIN, Edison W., petroleum engineer. Palembang, c/o N.K.P.M., Sumatra, Dutch East Indies.

BLINZLER, Lee L., B.S. After graduation he spent a short time in the geological department of a copper mining company and half a year as engineer for an oil company; took a course in business and finance in Chicago and held a position with an investment banking house of national importance to put this information into practice; returned to engineering,working for an oil company for a while, but decided to go back to mining; spent several years in the Philippine Islands as an engineer for a gold mining company as well as foreman in a cyanide plant; traveled in China and Japan; returned to the States to do consulting and designing and act as superintendent in mines; decided to go into the legal aspect of mining and registered at Hastings; went back to the operating end of mining; has been general superintendent and manager of a number of California enterprises, May, 1933,to date, and, at the same time, has worked as a consultant. Address: Box 188, Yreka, California.

BRADLEY, P.R., Jr. 2944 Avalon Street, Berkeley, California.

BONGARD, V. G.P. Graniteville, California.

Class of 1925 (continued).

CHRISTIE, J.B. 183rd Street and Pinehurst Avenue, New York City.

ERSKINE, N.M. 3025 Division Street, Los Angeles.

FISHER, R.B.

FORGERON, H.S., geologist. Pennsylvania Oil Company, Dallas, Texas.

GAVRILOVICH, V.J.

GILBOE, J.D., geologist. Shell Oil Company, 406 Haberfelde Building, Bakersfield, California.

HEIDE, H.E., mining engineer. Hollinger Mine, Timmins, Ontario. Home address: 746 Arguello Boulevard, San Francisco.

HOLMES, W.C., mining engineer. 2906 Pine Avenue, Berkeley, California.

IVY, W.R., engineer, seismologist. Shell Oil Company, 450 Higgins Building. Honorable mention for scholarship, University of California, Los Angeles.

KRIBBS, G.R. 614 Sierra Street, San Barbara, California.

LABARTHE, W.A. Georgian Manganese Company, Tchiatouri, Georgia, Russia.

LURY, A.M. Control engineer, Nevada Consolidated. Home address: 2418 College Avenue, Berkeley, California.

MAGUIRE, W., Jr. Manager, Chemical and Pigment Company, 766-50th Avenue, Oakland, California.

MANION, C.E., geologist. Superior Oil Company of California, 3015 Plumb Street, Houston, Texas.

PERRY, P.C., Jr., metallurgical engineer. Box 56, Selby, California.

PIERCE, G.G.

PRESTON, H.M. 7046-5th Avenue, Los Angeles.

PROBERT, A. Mill superintendent, M. and M. Company, Eureka, Colorado. Honorable mention for scholarship, University of California.

Class of 1925 (continued).

RORIPAUGH, C.C. Box 553, Ojai, California.

SERGENT, J.H.

SMITH, R.H. 225 West 11th Street, Los Angeles.

VEDENSKY, D.N, metallurgical engineer. Pan American Engineering Corporation. Address: 820 Parker Street, Berkeley, California.

WALLING, R.W., geologist. Associated Oil Company, 766 P.E. Building, Los Angeles.

WESSLER, L.F. Engaged in mining. Address: Box 26, Anaheim, California.

BAILEY, J.P., geologist. Standard Oil Company, N.V. Nederlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

Class of 1926.

ABOZEID, M., petroleum engineer, 90 United States Department of Mines, Durmawas, Cairo, Egypt.

BAUMAN, F.W.

BROADWAY, E.A. Murwood Mines, Senecterie, Quebec, Canada. Honorable mention for scholarship, University of California.

COX, C.W., civil engineer, Los Angeles County. Room 722, Hall of Records, Los Angeles.

DEFRAWI, A.E.H.M.

FAHMY, E.H.E.S., engineer. Department of Mines, Cairo, Egypt.

GENTRY, A.W., petroleum engineer. Shell Oil Company, 1731 Bank Street, Bakersfield, California.

HOLMES, S.W. Empire Gas and Oil Company, P.O. Box 1605, Holdenville, Oklahoma.

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Class of 1926 (continued).

JOHNSON, A.M. (deceased).

KOULAIEFF, I.G. President, Koulaieff's Sons, Inc., 120 W. Wilson Street, Tientsin, China.

MAHAN, F.S. 425 South Broad Street, Los Angeles.

MAUNER, R.B., engineer. Braden Copper Company, 2118 Prince Street, Berkeley, California.

MORRIS, M.W., engineer. Standard Oil Company, Taft, California.

MORRISON, W.H.

NEAL, E.S., geologist. Large Petroleum Corporation, Apartado 72, Maracaibo, Venezuela, South America. Honorable mention for scholarship, University of California.

RANKIN, W.D., consulting engineer. 432 S. Hope Street, Los Angeles.

RILEY, D.F., petroleum engineer. Box 575, Huntington Beach, California.

SANFORD, J.B. Address: R.F.D., Box 85, Brattleboro, Vermont.

SCHNUTENHAUS, W.W., engineer. Hercules Gold Mine. Address: Route B. Box 766, San Jose, California.

SHEA, J.P., geologist. Shell Oil Company, Ventura, California.

SLAYDEN, H.L. Standard Oil Company, Post Office Box 1200, Bakersfield, California.

STEWART, H.M., c/o Cerro de Pasco, Morococa, Peru, South America.

TABOR, L.L., geologist. Standard Oil Company, Apartado No. 3. Nacionales, Ibague, Columbia, South America.

TOWNLEY, R.R. Braun and Company, Alhambra, California.

TRAVERS, J.H., miner. 1053 Marine Avenue, Wilmington, California. Honorable mention for scholarship, University of California.

WITHAM, H.F. 589-62nd Street, Oakland, California.

Class of 1927.

BAKER, W.E. Fort Allegheny, Pennsylvania.

BARBAT, W.F., geologist. Standard Oil Company of California, Bin XX, Taft, California.

CHONETTE, W.C. Rotary helper. Shell Oil Company, Box 83A, Whittier, California. Honorable mention for scholarship, University of California; F.W. Bradley Prize in Mining, 1927.

CORLY, W.H., geologist. Standard Oil Company of California, Post Office Box 1437 (Arcade Annex), Los Angeles, California.

DAVIS, C.E. Pedro Miguel, Canal Zone, Panama.

EGGLESTON, W.S., petroleum engineer. Union Oil Company, Santa Fe Springs, California.

EVERS, H.L. Gulf Oil Company, Apartment 234, Maracabo, Venezuela, South America.

FITTINGHOFF, N.A., mining and metallurgical engineer. He was an engineer for the Sheepstank Consolidated Mining Company, Vicksburg, Arizona, and is now metallurgist in the Philippine Islands. Address: Box 10, Baguio, Philippine Islands.

FITZPATRICK, J.C.

FRIEDMAN, A.A., mining engineer. Engels Copper Mining Company, Englemine, California.

GOW, K.L.

HARRISS, T.F., geologist. California Arabian Standard Oil Company.

JOHNSON, F.A. 1320-3rd. Avenue, Los Angeles.

KIMELE, J.C., geologist. Union Oil Company, Abiline, Texas.

LEE, H.W. (deceased). He was employed by the United Verde Copper Company.

Class of 1927 (continued).

MC BRIDE, G.I. Texas Oil Company, Shreveport, Louisiana.

MARTIN, J.S. Honorable mention for scholarship, University of California. Address: 782 Bridge Road, San Leandro, California.

MERRILL, J.W. 2334 Marvin Avenue, Los Angeles.

MITCHELL, K.C. (deceased). He was killed in Mexico. Awarded Joseph Bonneheim Memorial Scholarship, University of California.

MURRAY, G.H. 1720 Johnson Avenue, San Luis Obispo, California.

PARISH, L.H. (deceased). He was killed in an automobile accident at Saint Elmo, Illinois.

PLATZ, T.H. Belgrano, Buenos Aires, Argentina.

POPE, S.H., engineer. Gypsy Oil Company, Box G., Three Sands, Oklahoma.

POPOFF, G.C. Foreman, electrolytic department, Sullivan Mining Company, Kollog, Idaho.

SAMPSON, J.H. General manager, Antamok Goldfields Mining Company, Box 192, Baguio, Philippine Islands.

SOWERBY, W.C. (deceased). He died in Mexico.

STEINER, C.A. Field department, Union Oil Company of California, R.F.D. 1-Box 176, San Luis Obispo, California.

STEVENS, A.B. Associate professor of petroleum engineering, A. and M. College, Texas.

WHITTLE, G.L. Richmond Petroleum Company of Mexico. Apartado 55, Bis., Mexico, D.F. Mexico.

Class of 1928.

ANDERSON, F.W., mining geologist. In charge of operations, Comet Coalition Mines Company, Pioche, Nevada.

BARTELS, A., petroleum engineer. 131½ South Flower Street, Los Angeles.

Class of 1928 (continued).

BARTON, C.L., petroleum engineer, Division of Oil and Gas, State of California. Address: 629 South Hill Street, Los Angeles.

BERRAY, Tom. 5417 South Gramercy Place, Los Angeles.

BESSOR, P.S., engineer. Anaconda Copper Mining Company, 521 Oak Street, Anaconda, Montana.

CHAVEZ, A.G., mining engineer. American Smelting and Refining Company, Cia Minera Asarco, Barbora, Chihuahua, Mexico.

COHN, A.A., Jr. Post Office Box 938, McCarney, Texas.

DAVIS, F.F., geologist. Shell Oil Company, 614 Shell Building, Los Angeles.

EASTMAN, D.B., petroleum engineer. Texas Company, Beacon, New York.

GARDNER, W.J., geologist. Standard Oil Company, 612 Standard Oil Building, Los Angeles.

GARZA, J.M. de la. Tobasco 82, Mexico City, Mexico.

HULTGREN, R.R., B.S. Highest scholastic honors; F.W. Bradley Prize in mining, 1928. Research fellow in metallurgy, University of Utah, 1928-29; degree of M.S., June, 1929; research on the hydrometallurgy of zinc; teaching fellow in chemistry, California Institute of Technology, 1929-33; degree of Ph.D., June, 1933; research on quantitative spectrographic analysis, the theory of chemical bonds and crystal structure by X-rays; national research fellow, Massachusetts Institute of Technology, 1933-35; research on X-ray determination of crystal structures; instructor in metallurgy and research on X-ray study of alloy systems, Harvard University, 1935. Address: Harvard University, Cambridge, Massachusetts. Residence: 69 Fairmont Street, Arlington, Mass.

Class of 1928 (continued).

JARVIS, W.L. Chief scout, lands and leases division, The Texas Company, 929 South Broadway, Los Angeles.

MEYERS, C.F.

NELSON, C.J., mining engineer. Braden Copper Company, Rancagua, Chile, South America.

OAKESHOTT, Gordon B., B.S. (M.S. in geology, 1929, and Ph.D., 1936, University of Southern California). Field geologist, Shell Oil Company at Santa Maria, California, 1929-30; instructor in earth sciences (geology, geography, and surveying). Address: Compton, California.

OAKRIDGE, O.G. 5345 Underwood Avenue, Oakland, California.

PARIS, J.F. Assistant research engineer, A.C.M. Company. Address: 330 Kenneth Road, Glendale, California.

PLATZ, F.C. Belgrano, Buenos Aires, South America.

RODRIGUES, A.I., mining engineer. H.P. Whitney, the Flin Flon and the Pas, Manitoba, Canada.

RODRIGUES, M.O. Frujillo, Peru, South America.

SAYRE, J.H. Jerome, Arizona.

STEPHENS, E.C., geologist. North Filo Mining Company, Eureka, Utah, and the Mountain City Copper Company, Mountain City, Nevada.

WEDDLE, H.W., geologist. California Company, Smith Young Tower Building, San Antonio, Texas.

WILSON, C.H. Honorable mention for scholarship, University of California.

WINTERBURN, R. Address: c/o Dan A. Hotan, Bakersfield, California.

WRIGHT, F.L.

Class of 1929.

BAILLY, D.G. 1349 George Street, Los Angeles.

BLOOM, C.D., engineer. Engineering inspector, State of California Division of Oil and Gas, 313 Haberfeld Building, Bakersfield, California.

CASWELL, J.E. Broken Hill, North Rodesia, Africa.

CHERRY, Ned D. 593 Magellan Avenue, San Francisco.

De CARBONEL, M.L. 22 Domingo Avenue, Berkeley, California.

De ROMA, E., Jr., mining engineer, Huanchaca Mining Company, 13 B. Beligiskaya Street, Modragon Harbin, China. Honorable mention for scholarship, University of California.

ERION, R.L. Address: c/o Chili Exploration Company, Chuquicamata, Chili, S. America.

FOX, W.A., petroleum engineer. Shell Oil Company, Ventura, California.

GRAY, R.A. 76 Scenic Avenue, Richmond, California.

GREGORY, P.P., petroleum engineer. Address: 771 Unohara, Nakano-Machi, Tokyo, Japan. He is also petroleum engineer with Yates Pool Advisory Commission, Box 578, Iraan, Texas.

GUSCHKENICH, V.I.

HANCOCK, Ray R., engineer. With Alex Anderson-Under Ground Surveys of Oil, 241 Whiting, Fullerton, California.

HENDERSON, H.B. 523 Bath Street, Santa Barbara, California. Honorable mention for scholarship, University of California, and F.W. Bradley Prize in Mining, 1929.

HUBBARD, M.E. 2522 Glen Green, Hollywood, California.

JUNGER, A. 620 North Spadara, Fullerton, California.

KOCH, D.E. 2045 Berryman Street, Berkeley, California.

Class of 1929 (continued).

OAKESHOTT, P.K. (deceased). He was geologist for one year (1929-30) at Ndola, Northern Rhodesia, for a copper mine company. He contracted spinal meningitis and died there in 1930. Honorable mention for scholarship, University of California.

PLANT, V., mining engineer. Bradon Copper Company, Rancagna, Chile, South America.

SISSON, Warren Elmer, geologist. 2525 Dwight Way, Berkeley, California.

TWEEDT, A.M., mining geologist. With Consolidated Copper Mines Corporation. Address: 228 Sunnyside, Piedmont, California.

Class of 1930.

CONDER, H.S. 324 Cherrington Drive, Cambridge, England.

ETHERINGTON, T.J., geologist. Address: c/o H.M. Davies, The California Company, 530 Continental Oil Building, Denver, Colorado.

GILMORE, H.V. 3rd and University Avenue, Berkeley, California.

GOSLINE, J.E., petroleum engineer. Standard Oil Company, San Francisco. Honorable mention for scholarship, University of California.

GRIBBEN, D.H. 542 Hobart Street, Oakland, California.

HUFFMAN, J.O. 1363 West 25th Street, Los Angeles.

IRWIN, H.D. 945 Camulas Street, Los Angeles.

JANTZEN, H.R. 1378 Alabama Street, San Francisco.

KINNEY, W.R., petroleum engineer. Shell Oil Company, Long Beach, California.

LANCASTER, E.H. United Paracale Mining Company, Paracale Cam Norte, Philippine Islands.

Class of 1930 (continued).

MULLEN, J.B. 630 E. 25th Street, Los Angeles.

PAGE, W.B. 605 Waller Street, San Francisco.

ROSS, J.D., petroleum engineer. Ross Amigos, Post office Box 427, Laredo, Texas.

SPRINKEL, R.L., Jr., engineer and geologist. C & H Sugar Refining Corporation, Baguio, Philippine Islands.

STEWART, H.H., engineer. Route 1, Box 238, Torrance, California.

WARREN, W.M. Anglo Oriental Mining Company, Ltd., Nigoria, Africa. Home address: 2532 Cedar Street, Berkeley, California. Honorable mention for scholarship, University of California.

WATERS, S.B., engineer. Shell Oil Company, 2501 Alhambra, Martinez, California.

Class of 1931.

ARMSTRONG, F.E., engineer. China International Famine Relief. Address: 34 Fairview Avenue, Piedmont, California.

BEDFORD, C.F. Standard Oil Company, Tulsa, Oklahoma. Honorable mention for scholarship, University of California.

BRADLEY, J.P. Superintendent, Spanish Mines. Address: 2716 Pacific Avenue, San Francisco.

CHAMBERLIN, J.B., mining engineer. U.S.S. Smelting Company, Fairbanks, Alaska.

DOELL, E.C., geologist. Standard Oil Company of California, Post Office Box 1200, Bakersfield, California.

FAIRBANKS, C.O. Manager, Fairbanks Oil Properties, Petrolia, Ontario, Canada.

Class of 1931 (continued).

FINGLAND, J.A. C.M. and S. Company, Trail, British Columbia.

GUZMAN, B. 195 South San Marino Avenue, Pasadena, California.

JOHNSON, G.S., Jr.

JONES, H.G. 3680 Bayside Walk, Mission Beach, California.

JONES, T.J. Holy Cross, Alaska. Honorable mention for scholarship, University of California.

LOW, F.G., mining man. 1608 Delaware Street, Berkeley, California.

McGINNIS, C.C. 302 Rose Street, Modesto, California.

McQUISTON, F.W., Jr., metallurgical engineer. Empire State Mines, Grass Valley, California.

MALOZEMOFF, Plato. 248 Santa Clara Avenue, Oakland, California. Honorable mention for scholarship, University of California, and F.W. Bradley Prize in Mining, 1931.

PYLE, H.C., geologist. Union Oil Company, 1115 Union Oil Building, Los Angeles.

RENEFF, B., mining engineer. 2041 Lyon Street, San Francisco.

SELO, M.A. 2032 Ellis Street, San Francisco.

Class of 1932.

ARNOT, T.H., junior engineer. Taft, California.

BRADLEY, L.M., geologist. Emerald Avenue, Oakland, California.

CASAGRANDE, E.W. Shell Oil Company, Martinez, California.

CORNWALL, S.D. Gonzales, California.

DAWSON, B.O. Continental Oil Company, Long Beach, California.

DE BERRY, F.J. 228 Drumm Street, San Francisco.

FONG, F.

Class of 1932 (continued).

GOLDSMITH, L.R., technical chemist. Shell Oil Company, Martinez, California. Honorable mention for scholarship, University of California.

HYATT, W. Castlegate, Utah.

PATCHETT, E.L. N.V. Nederlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

RADFORD, H.E. Pipe line department, General Petroleum Corporation, Lebec, California.

SOLOVIEFF, Vladmir V. Juneau Gold Mine Company, Post Office Box 1979, Juneau, Alaska.

SWEET, D.L., oil worker. Bakersfield, California.

VICTORIA, J. 2572 Le Conte Street, Berkeley, California.

WALKER, J.M. 617½ Dela Vina Street, Santa Barbara, California.

YOUNG, D.M. Guadulupe, Sinaloa, Mexico, Care Minera Des Los Guadulupe.

Class of 1933.

BAKER, R.E. Grass Valley, California.

BOWIE, A.P. Yukon Gold Company, Ampang Selangor, Federated Malay States. Home address: 1050 Stanford Avenue, Berkeley, California.

BROWN, Curtis, B.S. Employed, after graduation, by the Gypsy Oil Company in Oklahoma; returned to California a year later and, for the next eight months, worked for the San Diego Natural History Museum; and is now foreman with the Kelco Company in National City near San Diego. Mr. Brown writes that he never until now realized how well rounded the education is which one receives at the University of California in petroleum engineering and how easily a person can adopt himself to another

Class of 1933 (continued).

engineering profession with a major in petroleum engineering. Address: 2950 G. Street, San Diego, California.

DEVISOFF, N.J.

ELLIOT, R.J. 2728 Durant Avenue, Berkeley, California.

FLEMING, G.B. 2701 Hearst Avenue, Berkeley, California.

GEST, C.H. Trona, California.

HART, W.C. Post Office Box 883, Alleghany, California.

HASSAN, E.A. 87 Plaza Drive, Berkeley, California.

HOTCHKISS, M.F. 50 Domingo Avenue, Berkeley, California.

JAN, J., mining engineer. Sacramento, California.

KING, F.H., engineer. Industrial Minerals and Chemical Company, 836 Gilman Street, Berkeley, California.

LAW, J. 125 Arroyo Verde Road, South Pasadena, California.

LEW, W.L. Bear Valley, Mariposa County, California.

LINDBLOM, H.G. Paniques Mines, Rio Guinobatan, Masbate, Philippine Islands.

McCLELLAND, T.H. 1105 Amsterdam Avenue, New York City.

MATZINGER, C.P. 1050-54th Street, Oakland, California.

MEANEY, D.I. Address: c/o F.D. Ross, Route 4, Box 161, Hanford, California.

MILLER, F.G., mining engineer. 929 Broadway, Los Angeles.

NEWMAN, G.H. 78 Stanley Place, Piedmont, California.

NORTON, H. Harbin, China.

OLIVER, L.R. Mt. Eden, California.

REYNOLDS, J.M. Brae, California.

RIES, J.A. 2039 West Wisconsin Avenue, Apartment 1, Milwaukee, Wis.

Class of 1933 (continued).

SHERRILL, O.H. 2521 Dwight Way, Berkeley, California.

SNEDDEN, A. Octave, Arizona.

VAN FLEET, R.O., engineer. Texas Company, Box 183, Free, Texas.

WERNER, Arthur, Jr., mining engineer. Box 109, Walker Mine, California.

Class of 1934.

BLACKMAN, T.F. 862 Bellevue Street, Greenboro, North Carolina.

BRADLEY, J.D. Bradley Mining Company, 922 Crocker Building, San Francisco.

BRAMKAMP, C.S. N.V. Nederlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

BRISKIN, M.I., chemist. American Smelting and Refining Company, Selby, California.

BROWN, O.R., metallurgist. 2342 Jefferson Avenue, Berkeley, California.

DOMERCQ, J., Jr. The California Company, Drawer B, Midland, Texas.

EDWARDS, Gray, geologist. A.B., Harvard, 1932; graduate student, University of California, College of Mining. Address: 1931 Dwight Way, Berkeley.

EFFINGER, W.L. Richmond Petroleum Company of Columbia, Apartado Nacionales 3, Ibague, Columbia, South America.

FROME, R.G.

HAYS, J.P. 1523 West 65th Street, Los Angeles.

JOHNSON, F.T.

LINDBLOM, R.A. Allred Mining Company, Rio Guinobatan, Masbate, Philippine Islands. Honorable mentionfor scholarship, University of California.

Class of 1934 (continued).

MEJIA, J. Apartado 413, Fred T. Lay and Company. Apartado Postal No. 1219, Colombia, South America. Honorable mention for scholarship, University of California.

PUSTMULLER, P.S. 1709 Verde Street, Bakersfield, California.

RAAB, C.A., miner. Miami Copper Company, Miami, Arizona.

RICHARD, F.V., mining engineer. Asaroo Mining Company, Vanadium, New Mexico.

SMITH, W.A. (deceased). He lived at 443 North Maclay Street, San Fernando, California.

STRUTZELL, J.J. Greenville, Plumas County, California.

WHITE, J.B. (deceased). He was killed in an accident at the Baltoco Mine, Philippine Islands.

YOUNGWORTH, H. Employed by Consolidated Main Reef Mine, Witwatersrand, South Africa, as a graduate student, September, 1934, to March, 1936, and worked in the following departments: reduction works, sampling, ventilation, and survey; since March, 1936 ventilation engineer for Rhobana Mining Corporation, Ubana, Northern Rhodesia; also in charge of ventilation and dust sampling at Uvidola Mines.

Mr. Youngworth writes that, judging from the wide-spread demands for his services, the University of California College of Mining is foremost in the field of ventilation and compressed air. He calls attention to Ewing and Egan's book on mine cooling by devaporized compressed air, and says that he installed what he believes is the first practical application of this method-an air motor driven fan for shaft sinking at

Class of 1934 (continued).

7500 ft. depth. Address: P.O. Box 332, Bloemfontein, Union of South Africa.

TALLANT, R.L. Standard Oil Company of California, Post Office Box 1437 (Arcade Annex), Los Angeles.

Class of 1935.

ARTERO, Claude J. Worked as stope surveyor for Empire Mines, Grass Valley, California, during the summer and winter of 1935; acted as consultant for prospective buyers on the Mt. Diablo quicksilver mine, east of Clayton, California, fall 1935; employed by the Campagnie Aramayo de Minos en Bolivia as mine foreman at the Animas Mine, located at an elevation of 14,000 ft. above sea level, since January, 1936.

Mr. Artero writes that they are using an injector that was developed highly and with great success at the University of California. They are also using the Holms pump, developed by the University, to pump water to sub-level sumps for the water stopers. Address: La Paz, Bolivia.

BOURRET, G. Wester. Stayed out of school intermittently before graduating, working in Nevada mines as a laborer, with the United States Coast and Geodetic Survey as an engineer for five months, and with the United States Geological Survey as computer for a plane table party for four months; left immediately after graduation for the Philippine Islands to enter the employ of the IXL Mining Company in Balete, Masbate, and is head of their engineering department.

Mr. Bourret says there are about thirty California men

Class of 1935 (continued).

in the Philippines and nine on his island. Address: Balete, Masbate, Philippine Islands.

BELL, H.A. 1554 High Street, Alameda, California.

BLUMDEN, R.L.

CARLSON, C.G. 1354 Oxford Street, Berkeley, California.

COLMEN, E.J. General Petroleum Company, Whittier, California.

EADIE, A.F. Kenolworth Avenue, San Leandro, California.

FOREMAN, C.G. Briarcliffe Mines, Ltd., Plymouth, California.

FOX, C.

HARMAN, J.W., mining engineer. 2536 Virginia Street, Berkeley.

HICKS, F. 526 Adelardo Drive, Santa Barbara, California.

HOLMAN, R.A. 1060 South Broadway, Los Angeles.

HOLMES, G.C. Secured, shortly before graduation, a position with the IXL Mining Company, Philippine Islands, through the efforts of Dean Probert; worked first on surveying claims in the jungle, then on underground surveying; was shift boss in the mill and finally obtained position of making metallurgical tests of ore.

Mr. Holmes reports that all properties in the Masbate District are managed by graduates of the College of Mining of the University of California and that, in most cases, methods taught at the University of California are used. "This applies", he says, "especially to surveying and engineering design, as well as to geological work." Address: IXL Mining Company, Masbate, Philippine Islands.

Class of 1935 (continued).

HURLE, R.V., mining engineer. Vandercook Company, Gold Reserve Mine, Placerville, California.

ISAACS, V.A. 1234-27th Avenue, San Francisco.

LAMBRECHT, C.A. Hammonton, California.

LEONG, W. Assistant manager, H. Williams and Company, 1108 Stockton Street, San Francisco.

LINDSAY, C.A., metallurgist. 343 Sansome Street, San Francisco.

McHenna, N.S., geologist. 2121 Roosevelt Avenue, Berkeley, California.

MANN, H.A. Carson Hill Mining Company, Melones, California.

MARLACA, G.M., mining engineer. Room 52, Mexico, D.F.

MIDDLETON, D.M. Carrville, Trinity County, California.

MUSTEE, G.F. Walker Mine, Walker, California. Home address: 8335 Castro Valley Boulevard, Hayward, California.

NELSON, D.R. 1036 Ridgeley Drive, Los Angeles.

NORTON, R.W., Jr., petroleum engineer. Standard Oil Company, Fullerton, California.

PICKENS, R.A. 4115 Waterhouse Road, Oakland, California.

PRICE, F.W., mining engineer. Pacific Minerals Company, Richmond, California.

SCHRFE, G.O., Jr. Benequet Mining Company, Baguio, Philippine Islands.

SPAULDING, E.D. Eureka, California.

TAYLOR, V.L. 4648 Live Oak Street, Bell, California.

WADSWORTH, T.L., petroleum engineer. 1001 Higgnis Building, Los Angeles.

YOPES, P.F. Panique Mines, Inc., Rio Guinobatan, Masbate, Philippine Islands.

Class of 1936.

ABADIE, Henry George, petroleum engineer. School of Mines. Address: 649 Alcatraz, Oakland, California.

ANDREGG, John Norman. 2509 College Avenue, Berkeley, California.

BALENKO, John K. 2517½ Sacramento Street, Berkeley, California.

COLAHAN, Francis L. 2422 Channing Way, Berkeley, California.

CORY, Robert F. 2736 Bancroft Way, Berkeley, California.

DAVIS, Donald A., B.S., junior engineer. Antamok Goldfield Mining Company, Philippine Islands. Home address: 6525½ Bear Street, Bell, California.

DOWNEY, Ward James. 860 Sutter Street, San Francisco.

DURHAM, J.W. N.V. Nederlandsche Pacific Petroleum Mij., 26 Tanah Abang, Batavia-Centrum, Java, D.E.I.

FRISBIE, Bryan Ramon. General Delivery, Grass Valley, California.

GERBRACHT, Fred P., mining engineer. Employed by Compagnie Aramayo de Minos en Bolivia. His work consists of mine surveying, keeping engineering production records, and measuring up and determining the amount earned by contract miners. Address: Casilla 674, La Paz, Bolivia, South America.

GEORGE, J.L. 450 Pepper Street, Palo Alto, California.

HELLIER, Wm. R. 2826 Derby Street, Berkeley, California.

KEHOE, Frank Muir. 2100 Virginia Street, Berkeley, California.

McQUIRE, Richard J. 147 Conway Avenue, Grass Valley, California.

McLAUGHLIN, Alton E. Merced Falls, California.

OLSEN, H.T. Route 1, Box 930, Rio Linda, California.

POL, J.H. Box 61, Cardiff by-the-Sea, California.

PRIEST, Donald B. Box 7, Oilfields, California.

SMITH, R.M. 7009 Broadway Terrace, Oakland, California.

Class of 1936 (continued).

SODERHOLM, E.F. 2707 Fulton Street, Berkeley, California.

SPRAGUE, H.A. 313-58th Street, Klamath Falls, Oregon.

SUYDAM, Bill H. 1106 Craigmont Avenue, Berkeley, California.

THOMAS, C.W. Mine sampler with the Walker Mining Company, Walkermine, Plumas County, California.

ZOLDOCK, S.M. Homer City, Pennsylvania.

ERRATA.

Omit:

BELKNAPP, R.R. ..... Class of 1899, p. 21.

BELL, B.L.C. (deceased). He lived in Wilmington, California. ..... Class of 1899, p. 21.

BAGLEY, E.M. Balatoc Mining Company, Box 249, Gagino, Philippine Islands. ..... Class of 1899, P. 21.

Add:

ICKES, Eugene L., B.S., geologist. Born in Deadwood, South Dakota, June 11, 1885. Fellow, 1909-10, honorable mention for scholarship, University of California. He is connected with the following concerns: Cia Mexico de Petroleum, El Aguila; S. Pearson and Son, Ltd., London; Standard Oil Company of California; Gulf Oil Corporation. Junior Geologist, United States Geological Survey. Associate of Arts. Member, Society of Economic Geologists; Association of Petroleum Geologists; Mining and Metallurgical Engineers. Specialty: petroleum and structural geology. He is listed in "American Men of Science". Address: 122 Subway Terminal Building, Los Angeles. ..... Class of 1909, pp.54/8

CHRISHOLM, E.H. Honorable mention for scholarship, University of California. ..... Class of 1925, pp. 102/4

(to: WOLFLIN, G.L.) Attended the University of Redlands, Redlands, California, and the University of Arizona previous to coming to the University of California. Found temporary employment, as an undergraduate, with the United States Bureau of Mines (at the University of Arizona experimental

station, June to December, 1917; another time at the University of California station); spent, also prior to graduation, two months in underground work in the employ of the Empire Mines Company, Grass Valley, California; eight months in the naval service, training to repair and fly "heavier than-air" craft; and three periods, about two months each, as electrician in the ship building line. Was employed, after graduation, by the Valdor Gold Dredging Company, a subsidiary of the Metals Exploration Company, 1921-22; was assistant superintendent for the Lewiston Dredging Company, 1922-24; transferred, as junior engineer, to the United Comstock Mines Company, February to May, 1924; worked as field engineer for the Oliver Continuous Filter Company, later Oliver United Filters, 1924-32; carried on hydraulic mining operations in the La Grange Placer Mines, summer and fall, 1932; worked on the designing and construction of motorless airplanes up to March, 1935; obtained employment with the Metropolitan Water District of Southern California, 1935-36; and is, at present, lubricating engineer with The Texas Company.

Class of 1921, p. 91.

Correction:

Change: GRIFFITH, W.V. (deceased), mining engineer. His address was 441 Cloverleaf, Monrovia, California.

To: GRIFFITH, W.V. (deceased). He lived in Geyserville, California. ..... Class of 1906, pp. 43/4.

TABLE SHOWING THE NUMBER OF PH.B. AND B.S. DEGREES GRANTED BY THE COLLEGE OF MINING BETWEEN 1873 AND 1936

Ph.B. Degrees.

1877 - 7

1878 - 3

1879 - 9

1880 - 4

1881 - 2

1882 - 2

(Beginning May, 29, 1883, graduates of scientific colleges of the University received the B.S. Degrees.)

B.S. Degrees.

1884 - 1	1897 - 5	1910 - 28	1923 - 41
1885 - 3	1898 - 8	1911 - 44	1924 - 43
1886 - 3	1899 - 17	1912 - 26	1925 - 30
1887 - 7	1900 - 27	1913 - 25	1926 - 25
1888 - 2	1901 - 25	1914 - 25	1927 - 26
1889 - 3	1902 - 26	1915 - 15	1928 - 35
1890 - -	1903 - 30	1916 - 13	1929 - 13
1891 - 6	1904 - 30	1917 - 14	1930 - 23
1892 - 4	1905 - 21	1918 - 6	1931 - 12
1893 - 5	1906 - 41	1919 - 8	1932 - 22
1894 - 2	1907 - 42	1920 - 15	1933 - 26
1895 - 4	1908 - 43	1921 - 15	1934 - 10
1896 - 1	1909 - 26	1922 - 25	1935 - 32
			1936 - 24

(Ph.B. degrees granted, 1873-1882, 27; B.S. degrees granted, 1883-1936, 1003.)

INDEX OF GRADUATES, COLLEGE OF MINING, UNIVERSITY OF CALIFORNIA, BERKELEY.

B. Continued:

B. Continued:

B. Continued:

B. Continued:

C. Continued:

C. Continued:

C. Continued:

D. Continued:

E. Continued:

F. Continued:

G. Continued:

G. Continued:

H. Continued:

H. Continued:

H. Continued:

H. Continued:

J. Continued

K. Continued:

L. Continued:

L. Continued:

M. Continued:

M. Continued:

M. Continued:

M. Continued:

N. Continued:

O. Continued:

P. Continued:

R. Continued:

R. Continued:

S. Continued:

S. Continued:

S. Continued:

S. Continued:

S. Continued:

T. Continued:

W. Continued:

W. Continued:

W. Continued:

LIST OF INSTRUCTORS IN MINING AND METALLURGY.

1871-72

FISHER, R.A., M.D., Instructor in Chemistry, Mining, and Metallurgy.

1872-73

Same as above.

1873-74

Same as above.

1874-75

ASHBURNER, William, Professor of Mining.

RISING, Willard B., Ph.D., Professor of Chemistry and Metallurgy.

BECKER, George F., Ph.D., Lecturer on Metallurgy.

1875-76

Same as above.

1876-77

Same as above.

1877-78

Same as above.

1878-79

ASHBURNER, William, Honorary Professor of Mining.

BECKER, George F., Ph.D., Instructor in Mining and Metallurgy.

1879-80

ASHBURNER, William, Honorary Professor of Mining.

CHRISTY, Samuel B., Instructor in Mining and Metallurgy.

1880-81

Same as above.

1881-82

Same as above.

1882-83

Same as above.

1883-84

Same as above.

1884-85

Same as above.

1885-86

ASHBURNER, William, Honorary Professor of Mining.

CHRISTY, Samuel B., Ph.B., Professor of Mining and Metallurgy.

1886-87

ASHBURNER, Samuel B., Honorary Professor of Mining.

CHRISTY, Samuel B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, Franklin, Student Assistant in the Metallurgical Laboratory.

1887-88

Same as above.

1888-89

CHRISTY, Samuel B., Ph.B., Professor of Mining and Metallurgy.

1888-89 (continued).

BOOTH, Franklin, B.S., Assistant in the Metallurgical Laboratory.

1889-90

CHRISTY, Samuel B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, Franklin, B.S., Assistant in Metallurgy.

1890-91

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, F., B.S., Instructor in Metallurgy

1891-92

Same as above.

1892-93

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, F., B.S., Instructor in Assaying and Assistant in Metallurgy.

HERSAM, E.A., B.S., Analytical Assistant in the Department of Mining.

RICHARDS, Frank, Laboratory Helper.

1893-94

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, F., B.S., Instructor in Assaying, and Assistant in Metallurgy.

HERSAM, E.A., B.S., Assistant in Mining.

1894-95

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

BOOTH, F., B.S., Instructor in Assaying and Assistant in Metallurgy.

HERSAM, E.A., B.S., Instructor in Metallurgy and Analytical Assistant.

SIMONDS, Ernest H., B.S., Instructor in Assaying and Mill Assistant.

1894-1895 (continued).

RICHARDS, Frank, Laboratory Helper.

1895-96

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Instructor in Metallurgy and Analytical Assistant.

SIMONDS, E.H., B.S., Instructor in Assaying and Mill Assistant.

RICHARDS, F., Laboratory Helper.

1896-97

Same as above.

1897-98

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Assistant Professor of Metallurgy.

SIMONDS, E.H., B.S., Instructor in Assaying and Mill Assistant.

RICHARDS, F., Laboratory Helper.

1898-99

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Assistant Professor of Metallurgy.

SIMONDS, E.H., B.S., Instructor in Assaying and Mill Assistant.

MORLEY, W.S., B.S., Analytical Assistant.

RICHARDS, F., Laboratory Helper.

1899-1900

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Assistant Professor of Metallurgy.

MORLEY, W.S., B.S., Instructor in Assaying and Mill Assistant.

YOUNG, George J., B.S., Analytical Assistant.

RICHARDS, F., Laboratory Helper.

1900-01

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Assistant Professor of Metallury.

MORLEY, W.S., B.S., Instructor in Assaying and Mill Assistant.

HILTON, W.H., B.S., Analytical Assistant.

RICHARDS, F., Laboratory Helper.

1901-02

CHRISTY, S.B., Ph.B., Professor of Mining and Metallurgy.

HERSAM, B.S., Assistant Professor of Metallurgy.

MORLEY, W.S., B.S., Instructor in Assaying, and Mill Assistant.

WAHL, Arthur C., B.S., Assistant in Mining.

RICHARDS, F. , Laboratory Helper.

1902-03

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Assistant Professor of Metallurgy.

MORLEY, W.S., B.S., Instructor in Assaying and Mill Assistant.

DOZIER, Charles T., B.S., Assistant in Assaying.

RICHARDS, F., , Laboratory Helper.

1903-04

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, Curtis H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Instructor in Assaying and Mill Assistant.

DOZIER, C.T., B.S., Assistant in Assaying.

1904-05

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Instructor in Assaying and Mill Assistant.

DOZIER, C.T., B.S., Assistant in Assaying.

SPENCER, George, Mechanician.

WILLOUGHBY, Edwin B., Helper in the Mining Laboratory.

1905-06

Same as above.

1906-07

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

STINES, Norman C., B.S., Assistant in Assaying.

STEVENS, W.C., Assistant in Metallurgy.

SPENCER, G., Mechanician.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

CARPENTER, James, Storekeeper and Laboratory Helper.

GLASSON, Frank H., B.L., Clerk.

1907-08

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

1907-08 (continued).

HERRICK, Henry N., B.S., Assistant in Mining and Mechanical Draughtsman.

SPENCER, G., Mechanicaian.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

LEGHMAD, Allan L., Clerk.

1908-09

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

DURHAM, Edward B., E.M., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

HERRICK, H.N., B.S., Assistant in Mining and Mechanical Draughtsman.

SPENCER, G., Mechanician.

TALBOT, John L., Storekeeper and Helper in Mining Laboratory.

1909-10

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

DURHAM, E.B., E.M., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

HERRICK, H.N., B.S., Assistant in Mining and Mechanical Draughtsman.

SPENCER, G., Mechanician.

TALBOT, J.L., Storekeeper and Helper in Metallurgical Laboratory.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

1910-11

Same as above.

1911-12

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy.

DURHAM, E.B., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S. Assistant Professor of Metallurgy.

SPENCER, G. Mechanician.

TALBOT, J.F., Storekeeper and Helper in Metallurgical Laboratory.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

1912-13

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy and Dean of the College of Mining.

DURHAM, E.B., E.M., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

SPENCER, G. , Mechanician.

TALBOT, J.F., Storekeeper and Helper in Metallurgical Laboratory.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

1913-14

CHRISTY, S.B., Ph.B., Sc.D., Professor of Mining and Metallurgy and Dean of the College of Mining.

DURHAM, E.B., E.M., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

LINDLEY, C.H., Honorary Professor of the Law of Mines and Water.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

1913-14 (continued).

ULLEN, Lester C., Assistant in Mining and Mechanical Draughtsman.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

1914-15

----------,---, Professor of Mining and Metallurgy and Dean of the College of Mining.

LARSON, Andrew C., Ph.D., Professor of Geology and Mineralogy.

DURHAM, E.B., E.M., Associate Professor of Mining (to December 1931, 1915).

HERSH, E.A., B.S., Associate Professor of Metallurgy.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

ULLEN, Lester C., B.S., Instructor in Mining and Mechanical Draughtsman.

WILLOUGHBY, E.P., Helper in Mining Laboratory.

During the vacancy of the chair of mining in 1915, brief courses of lectures were giten by Mr. James H. Hyde, Mr. Whitman Symmes, Mr. Fred Searles, Jr., Mr. R.A. Kinzie, Mr. Wm Durbrow, Mr. Gardiner F. Williams, Mr. H. Foster Bain, Mr. Lindsay Duncan, Mr. Wm. J. Sharwood, Mr. C.W. Merrill, Professor F.C. Lincoln, Professor George J. Young, and Mr. J.A. Burgess. A more extended course was given by Professor C.E. Van Barneveld.

1915-16

LAWSON, A.C., Ph.D., Professor of Mineralogy and Geology and Dean of the College of Mining.

PROBERT, Frank H., A.R.S.M., Professor of Mining.

WEEKS, Walter Scott, A.B., B.S., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

UREN, L.C., B.S., Instructor in Mining and Mechanical Draughtsman.

1916-17

LAWSON, A.C., Ph.D., Professor of Geology and Mineralogy and Dean of the College of Mining.

PROBERT, F.H., A.R.S.M., Professor of Mining.

WEEKS, W.S., A.B., B.S., M.E., Associate Professor of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

UREN, L.C., B.S., Assistant Professor of Mining.

1917-18

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

WEEKS, W.S., M.E., Associate Professor of Mining.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

UREN, L.C., B.S., Assistant Professor of Mining (Absent on leave for the duration of the war).

1918-19

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College

1918-19 (continued).

of mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

WEEKS, W.S., M.E., Associate Professor of Mining.

UREN, L.C., B.S., Associate Professor of Mining.

MORLEY, W.S., B.S., Assistant Professor of Metallurgy.

1919-20

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

WEEKS, W.S., M.E., Associate Professor of Mining.

UREN, L.C., Associate Professor of Petroleum Engineering.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

------, ---, Instructor in Mining.

1920-21

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining.

HERSAM, E.A., B.S., Associate Professor of Metallurgy.

WEEKS, W.S., M.E., Associate Professor of Mining.

UREN, L.C., B.S., Associate Professor of Petroleum Engineering.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

FREEMAN, Lawrence K., B.S., E.M., Instructor in Mining.

1921-22

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

1921-22 (continued).

HERSAM, E.A., B.S., Associate Professor of Metallurgy (absent on leave, 1922-23).

MORLEY, W. S., B.S., Associate Professor of Metallurgy.

UREN, L.C., B.S., Associate Professor of Petroleum Engineering.

WEEKS, E.S., A.B., B.S., M.E., Associate Professor of Mining.

1922-23

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

HERSAM, E.A., B.S., Professor of Metallurgy.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

UREN, L.C., B.S., Associate Professor of Petroleum Engineering.

WEEKS, W.S., A.B., B.S., M.E., Associate Professor of Mining.

McINTYRE, R.S., B.S., Instructor in Mining.

1923-24

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

HERSAM, E.A., B.S., Professor of Metallurgy.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

UREN, L.C., B.S., Associate Professor of Petroleum Engineering.

WEEKS, W.S., A.B., B.S., M.E., Associate Professor of Mining.

McINTYRE, R.S., M.S., Instructor in Mining.

1924-25

Same as above.

1925-26

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

HERSAM, E.A., B.S., Professor of Metallurgy.

UREN, L.C., B.S., Professor of Petroleum Engineering.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

WEEKS, W.S., A.B., B.S., M.E., Associate Professor of Mining.

CARLSON, A.J., M.S., C.E., Lecturer in Petroleum Engineering.

1926-27

Same as above.

1927-28

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

HERSAM, E.A., B.S., Professor of Metallurgy.

UREN, L.C., B.S., Professor of Petroleum Engineering.

WEEKS, W.S., A.B., B.S., M.E., Professor of Mining.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

CARLSON, A.J., M.S., C.E., Lecturer in Petroleum Engineering.

1928-29

Same as above.

1929-30

PROBERT, F.H., A.R.S.M., Professor of Mining and Dean of the College of Mining (Chairman of the Department).

HERSAM, E.A., B.S., Professor of Metallurgy.

UREN, L.C., B.S., Professor of Petroleum Engineering.

1929-30 (continued).

WEEKS, W.S., A.B., B.S., M.E., Professor of Mining.

CARLSON, A.J., C.E., M.S., Ph.D., Associate Professor of Petroleum Engineering.

MORLEY, W.S., B.S., Associate Professor of Metallurgy.

1930-31

Same as above.

1931-32

Same as above.

1932-33

Same as above.

1933-34

Same as above.

1934-35

Same as above.

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